Volunteer Firemen

SEPTEMBER 1943

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston 10, Massachusetts

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FIRE PREVENTION WEEK - OCT. 3-9

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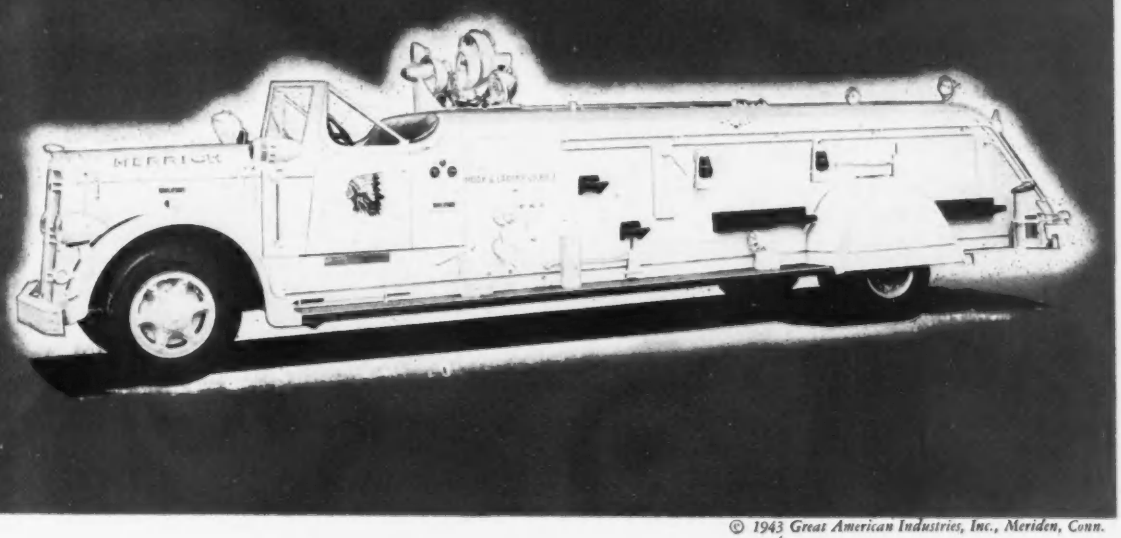

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● This Ward LaFrance Quadruple was recently delivered to the Merrick, Long Island Fire Department — engineered and built to meet the *exact* needs of the community it protects.*

Although Ward LaFrance is producing special motor trucks for our armed forces in record numbers, it is recognized that fire-fighting equipment for municipalities plays an all-important part in the over-all war affort, too. The Ward LaFrance apparatus we are turning out this year is the finest yet.

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FIRE POWER *NEEDS* FIRE PROTECTION

Three of the nine 16" guns of a new U. S. Battleship—A "Floating Fortress"

Official U. S. Navy Photograph

Battleships bristling with armament for enemy destruction still need fire protection.

Much of the damage to the Navy's fighting craft has been from fires caused by enemy action. Quick, efficient control and extinguishment of ships' fires, especially difficult oil fires, is essential to protect the *fire power* of battleships as well as lives and property.

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Volunteer Firemen

THIS issue of VOLUNTEER FIREMEN is actually our tenth anniversary number as the magazine first appeared with the date line of September, 1933. We feel that many of the original members of the Section will share our satisfaction at the steady growth of this paper which modestly started as a small 12-page issue and was printed only in black and white and without a magazine cover.

Success during the past year has been no less satisfactory for the Volunteer Firemen's Section of the National Fire Protection Association. A year ago we reported 751 departments and 15,027 firemen enrolled. During the past month the membership has reached a new high of 912 departments with 17,676 firemen. This increase is due largely to the fact that member departments, once enrolled, continue their membership in the Association year after year and tell other fire departments about VOLUNTEER FIREMEN.

We know of no other ten-dollar investment that gives a fire company so much interesting material in a year's time. Through the Volunteer Firemen's Section, fire departments can share the advantages of membership in a National organization devoted to fire protection. In addition to volunteer departments, other leading groups in the N.F.P.A. include fire chiefs and other officials of city fire departments; state and city fire marshals; various federal, state and provincial government officials of the United States and Canada; industrial concerns interested in fire safety; insurance inspection departments and rating bureaus; and representatives of other leading national organizations confronted by fire safety problems.

FOR nearly fifty years the Association has been preparing good practice standards for guidance in fire safety matters. These standards cover an almost endless variety of subjects, from specifications for municipal and rural fire apparatus to requirements for fire-safe blower and exhaust systems. The National Fire Protection Association is one of the outstanding voluntary non-profit safety organizations in the world. Membership is considered a distinction by leading fire officials on every continent.

Members of the Volunteer Firemen's Section can look with pride upon the N.F.P.A. membership certificate issued to their own company and know that they are counted among the leaders in a movement the purpose of which is "to promote the science and improve the methods of fire protection and prevention."
down the offenders."

Volume 10 Number 9

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-THE VOLUNTEER FIREMAN

A FIREMAN in Washington, D. C., recently gave his life in an accident that was the direct result of the war just as much as though he had been killed on the field of battle. Private Lemuel L. Owens was driving a 100-foot aerial ladder to a fire in downtown Washington. The apparatus had no siren because of what was apparently a local misunderstanding of an Army order prohibiting the use of fire sirens where they might be confused with air raid alarms by the public.

The fire apparatus, although travelling at a comparatively low rate of speed (25 m.p.h.), collided with a large commercial truck and burst into flames. The six firemen on the apparatus and the driver of the commercial truck were injured. The force of the collision tore the wheel from Owens' grasp and he fell head downward toward the street. Flames caused by the explosion of the gasoline tank swept around him burning him from head to foot.

After this tragic accident, the District of Columbia commissioners requested authority from the Army to restore the sirens on local fire apparatus. They were informed by the Army that use of sirens on moving fire apparatus had never been specifically prohibited, provided the sirens are sounded intermittently, as at street intersections or other danger points.

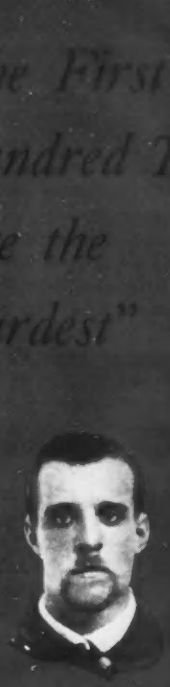
After all, American firemen have risked their lives responding to some one million fire calls since Pearl Harbor and as yet there has not been a single enemy air raid on the continental U.S.A. Use your sirens boys, but don't let them sound like an air raid drill.

THE subject of false alarms is ever of interest to firemen. Recently the city of Cincinnati, Ohio, began a vigorous attack on the problem as described in the following letter from City Fire Marshal Robert P. Williams:

"A large increase in the number of false alarms in our city during the past six months necessitated a means of combating this nuisance. A move, instituted by Safety Director Schraffengerger, now places an inspector on duty in the Fire Prevention Office from 10 P.M. until 6 A.M. in the morning for the purpose of investigating all alarms that are reported to him by the Fire Marshal (District Chief) responding to the alarm to be either false or of a suspicious nature. The Fire Marshal, or a man detailed by him, awaits the arrival of the inspector and a man from detective headquarters, who collect all available information and proceed to track down the offenders."

GEORGE W. COLLIER:

"The First Hundred Years Are the Hardest"



George W. Collier, 100 years old, June 7, 1943

When George W. Collier was ninety-six he described himself as "hale, hearty and always hungry." He's still all three; but we hope this last surviving member of the New York Volunteer Fire Department isn't too hungry because, when we compare what he tells us about the price and availability of food in his heyday with the present circumstances, we can only say that it's a good thing the old gentleman has his memories.

Back in the '50's, for instance, when food was food and the Washington Market was a glittering lamp-lit haven for the stout trenchermen — but let Mr. Collier tell it:

"Butter was only twelve cents a pound; coffee was eight cents. You could go get a penny's worth of salt and a penny's worth of pepper if you wanted it. Saturday night your mother would take you to Washington Market. You could get a chicken to clean, a piece of roast beef, six pounds for seventy-five cents. Why? Because the markets had no ice boxes to keep the stuff in, and the rats would eat it up before morning.

"Milk was a few cents. They'd go around in wagons and your mother would put a pail in the hall. We didn't lock the door in those days. She'd put a tin pail out with a note for three cents' worth or five cents' worth, and they'd put the milk in the pail."

And apparently in that dear dead era when meatless days were unknown, restaurants were as bountiful as the markets. Mr. Collier says:

"Down in Coenties Slip there was a fellow by the name of Sterling. You'd go in there and get your soup, your meat, your vegetables, your coffee, whatever fruit was in season and a dumpling for twelve and a half cents. We used to go to Coward's, the shoe man, and get a pair of shoes fitted for $2.50. How far a dollar did go in those days!"

Potables were as low in cost as comestibles, according to the venerable fire fighter. Gin, whiskey and brandy were three cents a drink. Mr. Collier did not mention the price of beer; perhaps they gave that away in those days.

A Celebrated Fire Fighter

While Mr. Collier liked to claim Peekskill as his home, he was actually born at 13 Christopher Street, in the heart of New York's old Greenwich Village. He points out that in the late '40's and early '50's there were no such things as free schools in New York, and that a boy's mother paid ten cents a week for the privilege of sending him to school. "They used sand on the floor," recalls Mr. Collier, "and when the teacher made a 'one' on the blackboard, you made a 'one' in the sand with a pointer. Then the teacher would write 'two' or 'three,' or spell out 'c-a-t' and you would copy it in the sand."

This article was made available to "Volunteer Firemen" by "News From Home" through the courtesy of its Editor, Mr. Kenneth H. Dunshee. "News From Home" is the official organ of the Home Fleet of Insurance Companies.

GUARDIAN ENGINE COMPANY NO. 29.

Paying respects to a fallen comrade.

Later Mr. Collier was brought up by his grandmother and grandfather in Peekskill, and later still he returned to New York and began his experience in fire fighting as a full-fledged member of Guardian Engine Company No. 29, and subsequently served as foreman of Jefferson Engine Company No. 26. His fire-fighting experience included some of the most celebrated blazes in New York's history. Here's what he says about a famous one:

"I remember the Barnum Museum fire in 1865. All the animals got burned to death except those that could fly. They had a big snake in there about thirty feet long. When they fed him, he'd raise his head and they'd drop a rabbit right down his throat. He was slowly roasting, so we broke the case and killed him."

Apparently fire-fighting officials were concerned with protocol in those days.

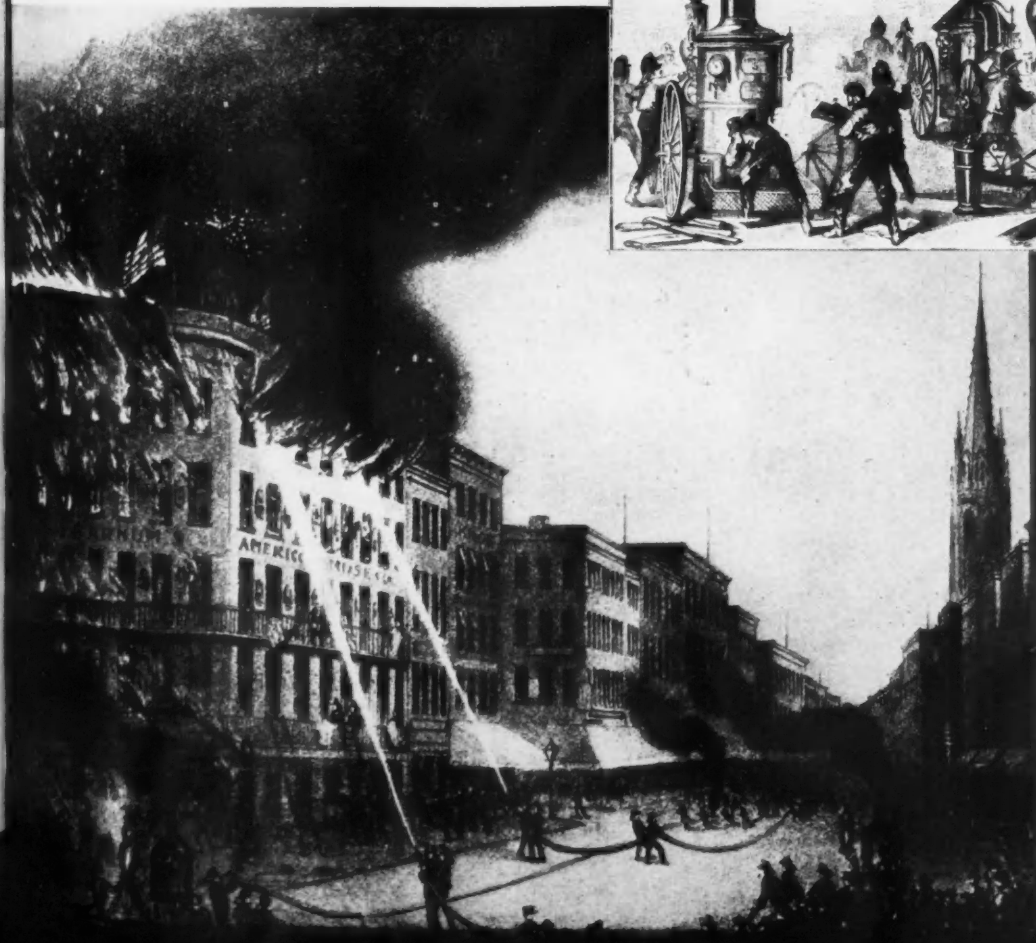
"There was," remembered Mr. Collier, "a second district fire down at Broadway and Lispenard Street and Chelsea. Decker was chief engineer at that time and, says he, 'Look up Broadway. There comes all the chiefs.' All of 'em had painted their hats white. He walked up to the truck and said 'Are all these men chiefs?' 'No,' says one of them, 'they're members.' 'Well, take that company right back and paint all their hats black except the foreman and his assistant!' "

The Boys of 29

Mr. Collier's own company was No. 29, and he still likes to repeat a verse commemorating the rivalry between that organization and the Howard Engine Company No. 34:

Little Red Rover
No machine could turn her over.
29 began to play,
Turned her over right away.

No 29 was first known by the name of "Constitution," afterwards as "Trident," and in 1836 it changed its name, after some opposition from some of the members, to "Guardian" which was retained until the end.



In years past, Mr. Collier was President of the Exempt Firemen's Association and held offices also in the Uniform Company and the Volunteer Firemen's Association of New York. He is at present senior trustee of the Firemen's Home at Hudson, New York, and an honorary member of many other volunteer firemen's Associations.

Among the other sidelights of Mr. Collier's fire-fighting career was his knowledge of Boss Tweed. Yes, Mr. Collier remembers Tweed who, in addition to his less savory occupations, was foreman of Americus Engine Company No. 6 and the president of the Exempt Firemen's Association. Incidentally, Mr. Collier presented one of Tweed's fire trumpets to the H. V. Smith Museum.

A Veteran Warrior, Too

But Mr. Collier's career was not confined to fire fighting by any means. The centenarian also fought in the War between the States and, after being captured, came back to fight again. This is how he described his experiences to us:

"I remember Butler when he came on from New Orleans and I remember him saying 'Whoever attempts to pull down the flag, I'll shoot him on the spot.' Somebody threw a rotten apple at him. He put out his hand and caught it. He said, 'If you knew how much the boys up front wanted that, you wouldn't throw it. I'll eat it myself.' And he stood there and ate that rotten apple.

"We were taken prisoner by Stonewall Jackson. It was unconditional surrender. There were 11,000 of us. They sent us to Andersonville and then to Libby. Finally they took our clothes and let us go home because they had no place for us. I remember there was a bridge that went from

As a member of the Exempt Association

Harper's Ferry over to Point-of-Rocks and we were exchanged and paroled. The poor Negro cooks were pulled out of line. In Philadelphia they gave us coffee and crullers. Then we took the Red Jacket and came to New York.

"In '63 we went back to Washington and from there we were ordered back to Harper's Ferry. The governor said he wanted to give the boys medals. The Government barracks were at Carlysle. Rebels started a fire and blew the ammunition all up. After that we marched to Gettysburg and arrived there the morning of the third when the battle was all over. It was awful!"

Mr. Collier distinctly remembers seeing Abraham Lincoln at the old Astor House just before the latter left for Washington to be sworn in for his second term as President. And he fondly recalls Jenny Lind, whom he calls "a nightingale singer."

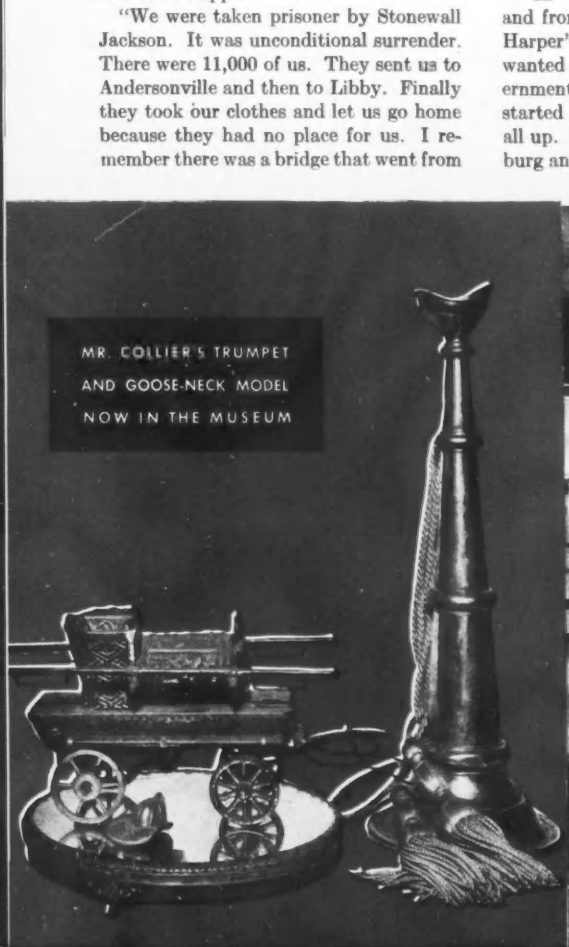
The Last Survivor

Today Mr. Collier is the only living veteran of the old 12th Regiment and of the famous 71st. He outlived the Aspinwall Post, McClellan Post and the Alexander Webb Post, and is the only survivor of the Major Alexander Post of the Grand Army of the Republic.

"A fellow asked me how I lived so long," said Mr. Collier, who on June 7th celebrated his 100th birthday. "I told him by not drinking, by eating right, going to bed early and not smoking cigarettes. 'I'm 55. I think I'll adopt that idea,' he answered. 'Too late,' I replied, 'you're too late. You're ready for the graveyard.'"

But if a man is as young as he feels and his physical age is bounded only by his mental horizon, then certainly this venerable battler of bombs and blazes will be with us for many more years. As an example of his attitude, listen to his answer when asked about the progress of lighting:

"When I was a boy they had whale oil in cans with a big wick. You'd pull the stem out and soak it in oil for three or four days and then take it out and put it in the tin can full of whale oil and light it. They used snuffers, too. Then came candles, then benzine, then gas, then electricity. What am I going to see next? The heavens open up and light everything!" May the "Chief" himself long continue to brighten this world.



MR. COLLIER'S TRUMPET AND GOOSE-NECK MODEL NOW IN THE MUSEUM

Early goose-neck fire engine obtained [illegible] through the efforts of Mr. Collier, now in the engine house of the [illegible] Engine Co. No. 13 at the H. V. Smith Museum

Massillon's Greatest Fire

Report on the Buckeye Cereal Co. Fire

By Chief Raymond Earle

AT 5:53 P.M., Friday, June 18, 1943, the Massillon, Ohio, Fire Department received a call from the Buckeye Cereal Company stating that smoke was noticed rolling out over the roof from the middle of the plant. Immediately transmitting Box 21, the Fire Department responded to the plant. Two lines were laid at once from both sides of the plant. The fire seemed to be in the third floor rear, at a junction of a small wooden elevator and the main plant.

After the fire appeared to be blacked out on the third floor, a terrific explosion occurred. This lifted the roof fifteen feet in the air, blew out part of the walls, blew firemen from the top of a parked trailer-truck from which they were working, and buried lines of hose. This explosion occurred about twelve minutes after the arrival of the first fire company. One fireman received a broken leg and another was badly cut by flying glass as a result of the explosion. Much valuable time was necessarily lost in removing the injured firemen from danger and in attempting to rescue equipment partly buried under the walls.

The explosion jumped the fire over as well as through a fire wall in the center of the plant. The fire then spread rapidly the entire length of the plant, throwing off intense heat that was almost unbearable 300 feet to the southeast. During the course of the fire numerous minor explosions tended to further spread the fire and increased the danger of falling walls.

The Buckeye Cereal plant, as a whole, was poorly constructed from a fire resistance standpoint, considering the hazardous contents which it contained. The walls were of brick but the roof was of tarpaper covered wood and all supporting members, the stairways, etc., were of wood. All openings were unprotected against fire and the elevator lifts served as flues for the spread of fire. All openings in the are wall had conventional wooden doors which blew out with the initial explosion.

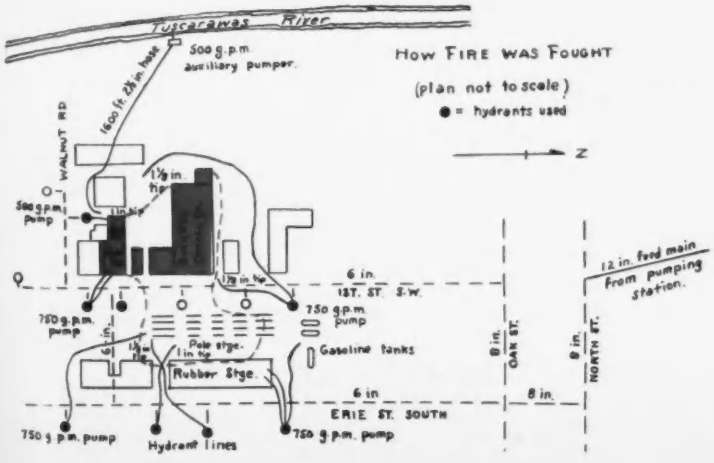
AS a seven-story wooden storage elevator at the front southeast corner of the plant caught fire, firemen were forced back. The exposed north end of the plant of the Massillon, Cleveland, Akron Sign Co. then caught fire from the intense heat given off by burning grain stored in thei elevator. This sign company plant had fire shutters on exposed windows. These were closed but the severe heat ignited the tarpaper covered wooden roof and the burning roof collapsed into the building. A small wooden cupola atop this building also helped to spread the fire. This building was two stories high and was used mainly for the storage of sign materials consisting of bolts of muslin, cardboard and similar combustibles. This warehouse was sprinklered, but a tin ceiling between the sprinklers and the burning roof made the sprinklers ineffective. With fire department pumpers taking all the water the 6-inch mains could supply, there was not sufficient water to supply the sprinklers anyway as these sprinklers were entirely dependent upon a 6-inch public water main that also supplied hydrants that had to be used by the five department pumpers.

Through heroic work, firemen, who took a lot of punishment, succeeded in stopping the fire at a fire wall separating the warehouse from the main plant of the same company. The day of the fire was hot with a temperature of 119 degrees in the sun. Fire fighting operations were further handicapped by a 25-mile wind blowing from the northwest to southeast.

The local department used three pumpers and one aerial ladder truck. In addition, two companies of OCD Auxiliaries, two companies from Canton eight miles away, one company from Dalton nine miles away, one company from Navarre five miles away, fought the fire. Burned or damaged beyond repair was 950 feet of double-jacketed 2½-inch hose and numerous couplings, fittings, and appliances.

Water supply came from a loop of two 6-inch mains with hydrants spaced 200 to 250 feet apart. One auxiliary pumper was stationed at the Tuscarawas River. Approximately 1,500,000 gallons of water was poured on the fire during the first 24 hours. This, undoubtedly, was the worst fire this city has ever had, both from the standpoint of intense heat and of property loss. The possibility of a sweeping conflagration was ever present. But for the heroic work of the firemen the loss could easily have been ten times as great. As shown on the diagram, within 100 yards of the fire were 30,000 gallons of gasoline, a lumber yard, and a storehouse with 1,500 tons of rubber. There were also three important war plants nearby. It is estimated that the loss (which has been estimated at over $500,000) amounted to only about 10 per cent of the property values actually ignited during the fire. I want to express my deep gratitude to all the outside fire departments that assisted at the fire.

Investigation showed that delayed alarm was a factor in the spread of the fire. The alarm was telephoned to the fire department by the night engineer after some difficulty in entering the office of the cereal plant. A city fire alarm box within 50 feet across the street was not used.



(*Continued on Page 32*)

Salvage Hints for Volunteer Departments

By Harry K. "Smoky" Rogers, Chief Instructor
Fire Prevention Department, Western Acturial Bureau

FIRE FIGHTING is not a new science. We have been told, for example, about the seven cohorts of 1,000 men each which Augustus Caesar used for fire-fighting purposes during the days of the Roman Empire. But the development has been most rapid in the last few years. Since motorization of fire departments, they have done more toward developing fire-department practices as a definite, skilled technique than ever before. The same change in methods of operation is now coming with the salvage corps. There is a very definite and purely selfish reason on the part of the firemen themselves for accepting an assignment or an obligation to do salvage work. It is one of the best public relations moves that they could make.

Imagine, if you will, a nice home located in the suburbs of the City of Chicago. A man gets up in the morning during the winter months and builds up the fire in the furnace so his family will be comfortable when they get up. He goes to work, but due to some defect in the heating equipment, a fire starts in this home. The family discover the fire very shortly, turn in an alarm, and a very efficient volunteer fire department arrives on the scene, puts out the fire, and does an excellent job of salvage work. This citizen is told at work that his house is on fire, so he comes home as soon as he can. When he arrives on the scene he finds that the family is still occupying the house, there isn't much indication of a fire having occurred there, perhaps a few burned rafters, but the roof opening has been taken care of with a tarpaulin. The furniture was all protected by salvage covers and the water has been squeegeed up and the floors have been mopped and probably are dry by the time the man gets there. The heating plant is back in operation, with the defect corrected, and the family can continue to live in the house.

That is a modern volunteer fire department, working as it should.

LET'S take the other extreme. A fire department — and there are many of them in the country today, not only volunteer but paid as well — that think their only job is to go out and extinguish the fire. That is a completely erroneous idea, because when any fireman, regardless of whether he is volunteer or paid, joins a fire department, he takes an oath, or at least it is implied, that he will exert his utmost endeavor to save life and property. If he is only concerned with extinguishing the fire and defeating one means of destruction, then he is not accepting his full obligation. As you all know, water can be just as destructive as fire, and the techniques employed by many fire departments are just as destructive as fire or worse.

NOW, we will imagine the same circumstances, a good, substantial citizen, a nice home. He, too, builds up a fire in the furnace and leaves for work and the fire starts up in the attic, through a chink in the chimney. The fire department is notified and they, too, respond. They do a good job so far as actually extinguishing the fire is concerned. But that is all they have done. They have paid absolutely no attention to any salvage operations.

Again, the man hears of the fire at his place of business. He goes home as rapidly as possible and on his arrival, does he find the same sort of a picture that the other gentleman found? Not at all. He finds the family scattered about the neighborhood where kind-hearted neighbors have taken them in. The furniture is completely ruined, soaked through. The floors are even then beginning to warp. There is a big hole in the roof and the elements can enter the house and wreak still greater damage.

Now, just compare for a moment in your mind the attitude of these two men. The second one, of course, may feel some measure of gratitude toward the fire department for having put out the fire. He may be able to salvage something of his property. But is he sold on the fire department? Not very much.

The man in the first case, however, is pretty thoroughly sold on the value of his fire department. He thinks they have done a good job and not only does he think so, but all of his neighbors think so. Then, when that fire department wants something from the citizens, are they going to be able to get it? Why, certainly they are. They have done a good job of selling themselves to the public. They are an efficient organization. They are doing the job that they are supposed to do, doing it in a workmanlike manner, and they are entitled to the wholehearted co-operation and support of every citizen.

That one point alone makes it advisable for any fire department to seriously consider this business of instituting salvage work in their departments.

A good job with salvage covers prevents damage to fragile fixtures.

Eliminate the Hazards of BELATED DISCOVERY and DELAYED ALARMS

A RECENT REPORT of the National Fire Protection Association shows that industrial fires in the first four months of 1943 matched the entire industrial fire total for 1942. Such fires have destroyed food and war supplies, delayed production in war plants and damaged military property.

The National Fire Protection Association further points out that many of these fires would never have reached destructive proportions had the plants been provided with adequate means of detecting blazes in their incipiency, and summoning the fire department promptly.

The hazards of belated discovery and delayed alarms can be effectively eliminated through adoption of A.D.T. Electric Protection Services. For detailed information write A.D.T., 155 Sixth Avenue, New York, N. Y.

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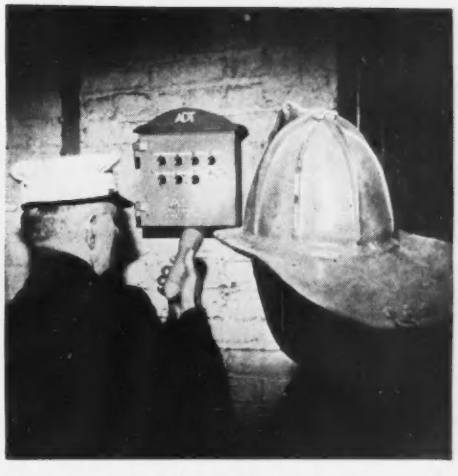
A.D.T. MANUAL FIRE ALARM SERVICE: Alarm Boxes at strategic locations throughout the premises enable occupants to summon the fire department quickly and accurately without leaving the building.

A.D.T. SPRINKLER SUPERVISORY AND WATERFLOW ALARM SERVICE: Makes the sprinkler system an automatic fire alarm, summoning the fire department direct to the premises whenever a sprinkler head opens. Maintains continuous electrical supervision of shut-off valves and other vital parts of the sprinkler systems to assure constant operating efficiency.



A.D.T. AERO AUTOMATIC FIRE ALARM: (For unsprinklered properties, or in conjunction with sprinklers) Automatically detects fire when it starts, and summons the fire department automatically. Annunciator outside building indicates fire area where alarm originated.

A Handy Salvage Cover Roll for Two Man Throw

THE well-trained fireman knows that water coming from a hose stream at the rate of about a ton a minute can be almost as destructive as fire. Accordingly he does not "play away" promiscuously in the "we drown to save" fashion of the old-time smoke eater, but seeks to be an artist in the use of a shut-off nozzle. He opens the nozzle only when he can actually hit fire and shuts it off promptly when the blaze has been blacked out. But no matter how carefully the fireman controls a nozzle, there is apt to be a lot of water in a building if the fire has been of sufficient size to require the use of 2½-inch "big line" or even the use of the smaller 1½-inch hose. Prompt and effective salvage operations are thus an essential part of the fire fighting job.

For many years the larger cities have had salvage or "protective" companies or patrols specializing in the control of water and other incidental damage at fires. For the past 15 or 20 years, since firemen's training programs have made it possible for members of the smaller departments to become trained as skilled fire fighters, salvage work has been one of the fundamental jobs of every up-and-coming fire department.

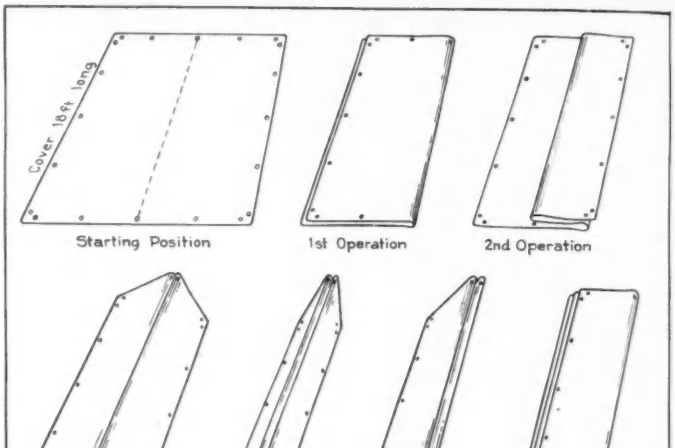
Without question the most important salvage tool is an adequate stock of waterproof salvage covers that can be spread to protect goods that might otherwise become wet by hose streams or dripping water. A knowledge of how to use such covers quickly and efficiently is the basis of successful salvage work by the average fire company.

Most salvage covers in use are 18 feet long and 12 feet wide. Some are larger. Thus some practice in "throwing" or spreading these covers is essential to prevent damage to the merchandise or furniture being covered as well as to prevent soiling or tearing the covers.

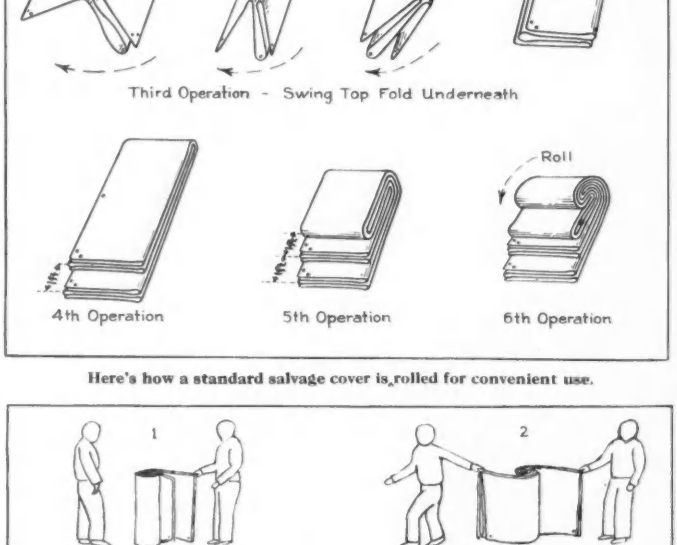
There are several methods of folding salvage covers. These include the "one man fold" described in VOLUNTEER FIREMEN for May, 1935, and the "two man fold" described in VOLUNTEER FIREMEN for February, 1937. However, a number of leading fire departments and salvage corps, prefer to use a rolled rather than a folded salvage cover. It is claimed that the rolled cover is easier to carry up stairways and ladders and that it is easier to spread and throw the cover completely over the goods to be covered.

On this page we show the method of rolling and spreading salvage covers recommended by members of the Massachusetts Fire Department Instructors' Association. Making the roll is quick and easy work once the trick of swinging the cover to form the third fold is mastered. This is done by lifting the cover from the center of each end and swinging the top fold underneath as shown in the illustration. The completed roll is tied with a very light string. This can be broken easily to expose both ends of the cover which is spread in the manner shown in the lower illustration.

A more complete discussion of salvage work is contained in the Training Manual for Industrial Fire Brigades, published this year by the N.F.P.A. and sent to fire departments holding N.F.P.A. membership.



Here's how a standard salvage cover is rolled for convenient use.


1
Stand rolled cover on end, outside corners down. Break string holding roll, to expose both ends of cover.
2
One man stands holding the outer end while the other man grasps the other end and pulls cover out full length.
3
With the cover stretched full length alongside the goods to be covered both men have a fold in each hand.
4
The fold nearest the goods to be covered is dropped to the floor to free one hand for the next operation.
5
Holding one fold, the men take as many folds of the free cover in their hands as is conveniently possible.
6
Swinging in unison, the men throw the cover over the goods so that it falls completely over the goods to be covered.

Here's how two men pull the cover open and balloon it over the goods to be covered.

History of the Booster Tank

By Boris Laiming, Member N. F. P. A.*

IN spite of the nationwide recognition given the booster tank in recent years, the chemical tank is still in service on much of the older apparatus of many American fire departments. Quite recently, one eastern city even considered equipping new pumpers with soda-acid type chemical tanks, a move surprising indeed in view of the many advantages of the booster tank over the old chemical engine.

Many of these advantages are quite obvious. Most important is that boosters an be used for continuous operation ase small pumping units supplying one or more easily handled lines as long as the tank is kept filled. This may be done with an ordinary line of hose from a hydrant or, in rural areas, means of water carried in milk cans or tank trucks.

Firemen also like boosters because they do away with the need for handling the fussy chemicals in recharging the equipment.

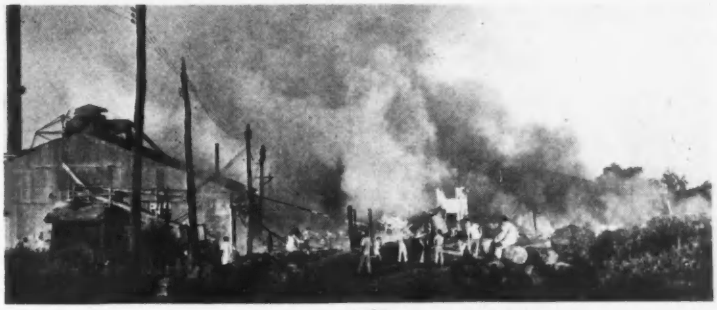
Booster tanks of one hundred or more gallons capacity are recognized as standard equipment for pumpers and city service trucks in the Specifications for Automobile Fire Apparatus, published by the National Fire Protection Association. A few notes on the history of the booster tank will make clear their thirty-five years of efficient service throughout the world.

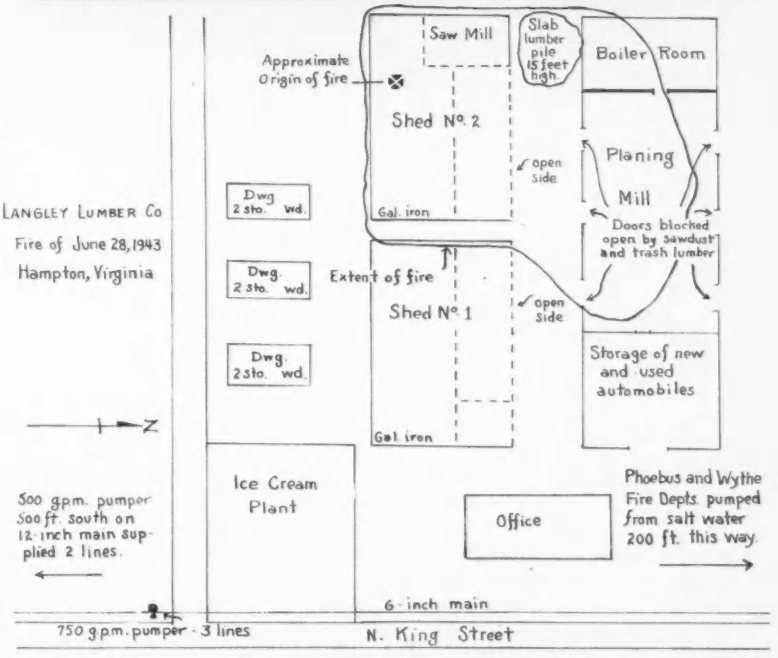
THE need for providing small streams at the early stages of fires, without recourse to manual pumping, arose in the days of horse-drawn steam fire engines. The time required to get heavy hose lines into operation in the days of slow-moving steam fire engines resulted in the adoption of chemical tanks by many American fire departments. To cover areas not immediately adjacent to the station of a steam fire engine and to protect fast growing residential areas, it was common to provide chemical engine companies with horse-drawn apparatus consisting of several large soda-acid chemical tanks. Also popular was combination apparatus having one or more large chemical tanks in addition to a hose body or large horse-drawn hose reel. Such companies were known as "combination companies" as they combined the function of the chemical engine and the hose wagon and were manned by small

*Mr. Laiming, a geologist with the Texas Company makes his home in Los Angeles. For many years, since his boyhood days in the old Russian Czarist capital of St. Petersburg (now Leningrad), he has made a study of fire department practices in all parts of the world. He is the author of "Fire Problems of American and Foreign Cities," N.F.P.A. Quarterly for January 1936; and "Fire Department Practice in Foreign Cities," N.F.P.A. Quarterly for October 1936.

(*Continued on Page 30*)

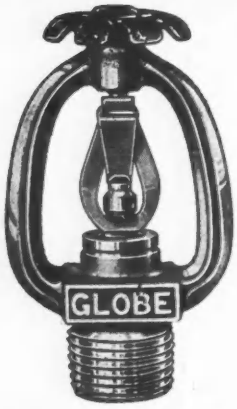
LUMBER PLANT FIRE IN VIRGINIA





Chief Harry L. Carmines, of Hampton, Virginia, reports an interesting lumber plant fire in his city. An employee of a nearby ice cream factory reported that flames flared up in a lumber shed as though gasoline had been poured on the fire. He telephoned to the Hampton Fire Department which put its 750 and 500 g.p.m. pumpers into operation. Pumpers of the Phoebus and Wythe Fire Departments were called and drafted salt water a short distance from the plant. The Fox Hill Fire Department brought back-pack pumps of the "Indian" type and "helped put out small fires that were springing up everywhere." The above diagram shows the good stop made by the combined fire departments. Orders to clean up the premises issued shortly before the fire by the State Fire Marshal's Office had been unheeded as at the time of the fire. At least six doors were blocked open by sawdust and lumber refuse. An employee of the lumber plant, who first saw the fire failed to use fire extinguishers, reportedly stating he did not know they were there.

Typical horse-drawn chemical engine found in most American cities at the close of the last century. The two vertical chemical tanks operated in turn provided for almost continuous discharge through the chemical line carried on the reel. The suction hose and hand pump at the rear could be used for recharging the tanks. Chemical recharges were carried.



ELOQUENT FIGURES!!

In the two decades before Automatic Sprinklers came in to use in 1875, fire losses in selected industrial plants were over 30 cents per $100 insured.

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Simple Hitches for Hoisting

By Captain A. P. "Buck" Simpson

Evanston Fire Department, Evanston, Wyoming

EVERY fire department regardless of size uses knots of various kinds to tie equipment and tools so they may be raised to an upper floor or roof. Each department has a system of its own and very few if any departments have what can be called a perfect system. That is, perfect in the ease in which they are tied and untied and ease of remembering.

Each year members of departments, more especially the volunteer departments, return from their trips to their state fire schools, bringing with them a different system of knots and methods of tieing tools to be hoisted.

For a few practices these knots are tied and worked with but as the year wears on the complicated knots are gradually pushed to one side and more or less forgotten until at some practice meeting a member says, "How do we tie a salvage cover to be hoisted." So out comes the rope or ropes and there are as many versions of that particular knot as there are members present. Finally after many minutes and many tries some one stumbles on to the knot used to tie a salvage cover to be hoisted. Imagine a salvage crew on an upper floor waiting for another cover to spread to protect some furniture or some expensive machinery.

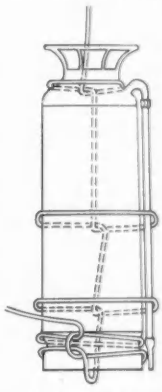
A KNOT to be of any real value especially to a fire department should possess four very essential points: 1. Easily tied under the most adverse conditions. 2. Easily untied under the same conditions. 3. They must hold securely and be safe even though abused. 4. Last but not least, the knot must be easy to remember.

The various knots that large paid departments use are fine, they do a very nice job, but, we volunteer firemen must remember these larger departments use these knots many times where we use them maybe only a few times a year. They have an opportunity to practice them as often as they wish, where maybe four or five practices a year is about our limit.

When we do use a knot to hoist something we are just a little in doubt as to whether or not it is just exactly right and if it will start to untie when about half way up. Many times it has to be tied maybe two or three times before we get it hoisted.

So, with this in mind, we have forgotten all the fancy names and complicated bends, ties, bights and so on and have finally arrived at a method or system of tieing tools and equipment to a rope by using only two knots or rather hitches that every body uses nearly every day. They are simple and easy and we feel they possess the four very essential points to make them a useful knot to a fire department.

I. To Hoist Extinguisher

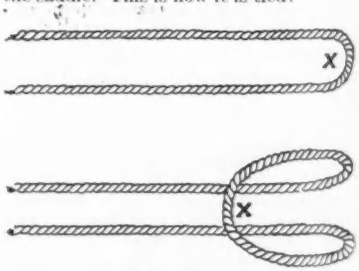


I don't know of any one over twelve years old that can't put a half hitch on an axe handle nor who can't make a simple double loop by doubling a rope and picking up the end of the rope that has the loop in it bringing it back up on the rope making a double loop.

To prove to yourself that a double loop is a safe and secure knot try this. Lay a roof ladder on the ground, lock a hook into position and drop a double loop on the hook, tighten it up. Have two or three men stand on the ladder and have a couple of men pull on the rope. You will find the knot will hold and also you can untie it easily. It stands to reason that if this double loop will hold this way on a smooth round hook that it will hold just as well on other tools.

The half hitch and the double loop is the complete set of knots we use to tie any piece of equipment or tool we have an occasion to hoist off the ground. These knots are fast, safe and easy to tie.

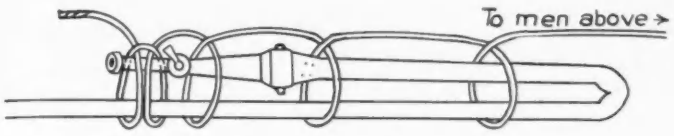
To tie the double loop or rather make the double loop, for you really do not tie it, it can't be called a knot. It is what is called a girth hitch that is used on a saddle when you bring the saddle girth under the horse's belly and tie it to the girth ring on the saddle. This is how it is tied:



Make a bend in the rope keeping both ends of the rope in your one hand, then reach down and take hold of the rope at point X, bring it back up toward the hand holding the ends of the rope and there is your double loop. Could anything be easier?

Simplified Method of Tying Tools and Equipment for Hoisting

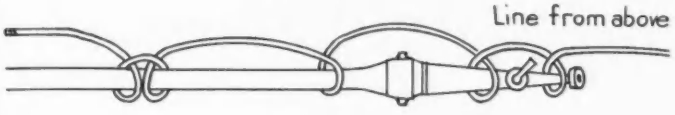
II. To Hoist a Line with Nozzle Attached



II. See that the nozzle is in the shut-off position. Fold the nozzle back on hose so that about 18 inches or so of hose is above the nozzle. Make a double loop and slide it down over the hose so that it is around the nozzle tip and hose or down below the shut off on the tip. Draw this up tight. Make a half hitch and slide it down on the hose and nozzle so it is on the other side of the shut off (from the double loop). Draw this up tight. The hose and nozzle are now ready to be hoisted.

The reasnn for folding the hose back so that the nozzle is pointed backward is to protect the tip and to keep the shut off closed should the nozzle bump against anything.

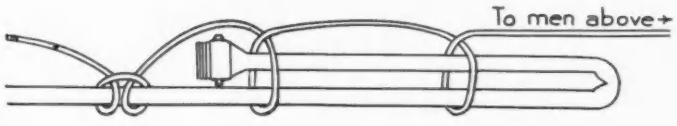
III. To Lower a Line with Nozzle Attached



III. See that the nozzle is in shut-off position. Make a double loop and slide it down over the nozzle and down the hose about 18 inches. Draw tight. Make a half hitch and slide this down the hose to just below the coupling. Draw tight. Make a half hitch and slide it down the nozzle to just below the shut off. Draw tight. Make a half hitch and slide it down on the tip just above the shut off. Draw tight. Line and nozzle are ready to be lowered.

The hose and nozzle are lowered straight to protect the tip. Should the shut off bump against anything it will have a tendency to remain shut. Should the line be charged no harm would result.

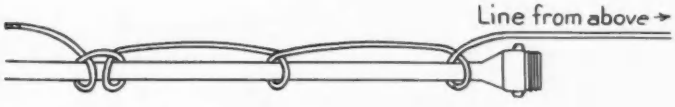
IV. To Hoist a Line with Open Butt



IV. Fold the hose back about 18 inches. Make a double loop and side it down the hose below the open butt. Draw tight. This puts the loop on the single hose only. Make a half hitch and slide down the hose to just above the butt. Draw tight. Make a half hitch and slide down the hose to about 8 inches from the end. Draw tight. The hose is ready to be hoisted.

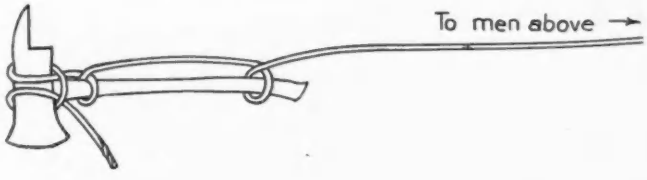
The hose is folded back to protect the open butt should the hose bump against anything.

V. To Lower a Line with Open Butt



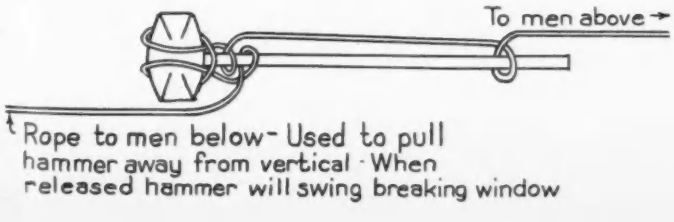
V. Leave hose stretched out straight and make a double loop, sliding it down about 18 inches on hose. Draw tight. Make a half hitch and slide it down about half way between the double loop and open butt. Draw tight. Make a half hitch and slide it down just below the coupling of the open butt. Draw tight. Hose is ready to be lowered. The reason for leaving the hose straight is to protect the open butt from damage if hose should bump into some obstruction.

VI. To Hoist or Lower an Axe



VI. Make a double loop. As the loop is formed hold the ban originally made by doubling the rope (the bend is the first step in making a double loop) away from the handle. Put one loop over the bit of the axe. Put the other half of the double loop over the pick head of the axe. Draw the double loop tight. Make a half hitch and slide it down the handle as close to the axe head as possible. Draw tight. Make a half hitch and slide it down handle to about 8 inches from end of handle. Draw tight. Axe is ready to be hoisted. To lower axe make same tie.

VII. To Use Sledge Hammer as a Window Breaker



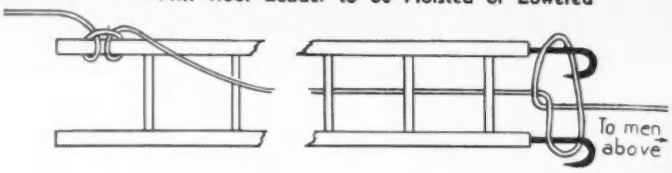
VII. To hoist or lower a sledge hammer the same tie is used as when hoisting or lowering an axe. The exception would be that the double loop would be put over the two heads of the hammer rather than the axe bit and pick.

To tie the sledge hammer for use as a window breaker, form the double loop at about the center of the rope. Tie in the same manner as for hoisting and draw up tight. Make the half hitches and place on the handle as for hoisting. Make a half hitch in the half of the rope to be used by man on the ground and place it around head of hammer just above head on handle. Draw tight.

The men on roof will hoist hammer to the window to be broken. Man on ground will pull hammer out from building and then let it swing into window.

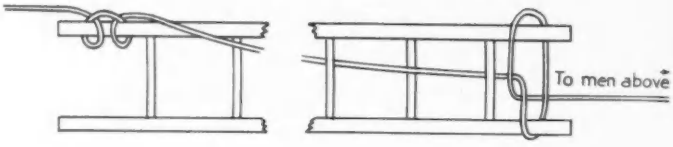
VIII. Place roof ladder on ground with top pointing toward building. Lock hooks in position, with hooks pointing upward. Although not shown in the drawing it is desirable to pass rope between two top rungs. Take rope to foot of ladder, making double loop as you walk. Put double loop over one beam, slide up to bottom rung. Draw tight. Make one-half hitch and drop it over both hooks. Draw tight. As ladder is started up turn hooks toward building. When lowering turn hooks away from building.

VIII. Roof Ladder to be Hoisted or Lowered



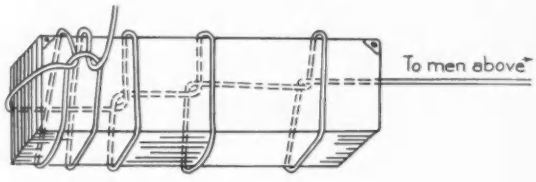
IX. Place ladder on ground with top toward building. Pass rope between two top rungs. Take rope to foot of ladder forming double loop as you walk. Slip the double loop over one beam. Slide it up to the bottom rung and draw tight. Make half hitch and slide it down around both beams at the top of ladder. Draw tight. The same tie is used to lower the ladder.

IX. Wall Ladder to be Hoisted or Lowered



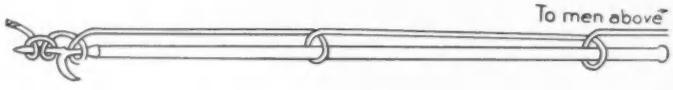
X. Salvage cover folds may be different in every department. We have our own, but I think the same tie can be adapted to most salvage cover folds. Lay the cover on the ground. Pull up the two top folds and roll the cover in these folds. Slip a double loop over one end of the cover and draw tight. Turn the cover half over and bring the rope from the double loop around the end of the cover so that the half hitches will be on the opposite side of the cover from the double loop. Make a half hitch and slide down on the opposite end from the double loop, as close to the loop as possible. Draw tight. This places a double loop and half hitch together. Make a half hitch and slide to about the center of the cover. Draw tight. Make a half hitch and slide down to about 8 or 10 inches from end of cover. Draw tight. If cover is unused it can be lowered in same manner.

X. Salvage Cover to be Hoisted



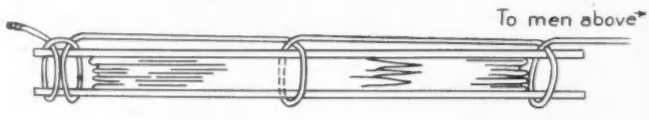
XI. Make a double loop and slide it up on the point to the prong and draw tight. Make a half hitch and slide it down to just above prong. Draw tight. Make another half hitch and slide it half way down pike pole. Place a third half hitch about a foot from the end. Draw tight. Pike pole can be hoisted or lowered with same tie.

XI. Pike Pole to be Hoisted



XII. Make a double loop and slide it over one end of the handles just below canvas. Draw tight. Slide a half hitch about half way down on the stretcher. Draw tight. Make another half hitch and slide it down on the other handle to the canvas. Draw tight. Stretcher may be lowered in same manner if unused.

XII. Stretcher to be Hoisted

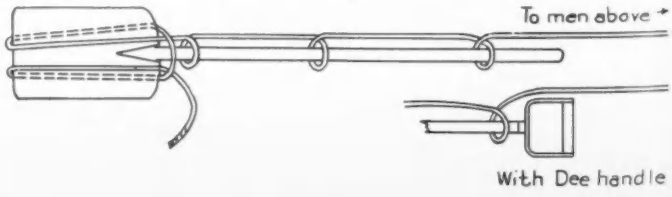


XIII. Make a single loop in the rope and slide this through the saw handle. Pass this loop down over the end of the saw and back up to the handle forming a double loop. Draw tight. The saw is ready to be hoisted and can be lowered in the same manner.

XIII. Saw to be Hoisted or Lowered

XIV. Make a double loop and place over blade in same manner as when tieing the sledge hammer. Slide the loops close together at the center of the shovel blade and draw tight. Make a half hitch and slide down as close to the blade as possible. Draw tight. Make another half hitch and slide down on the handle about a foot and draw tight. Should the shovel have a Dee handle the last half hitch is placed just below the handle.

XIV. Square Shovel to be Hoisted



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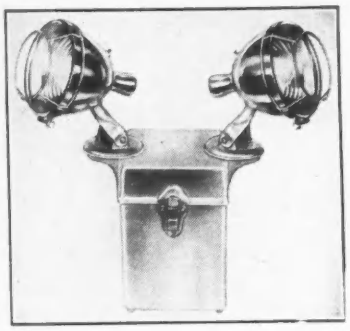

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CAMBRIDGE 39, MASS.

I Was a Fireman

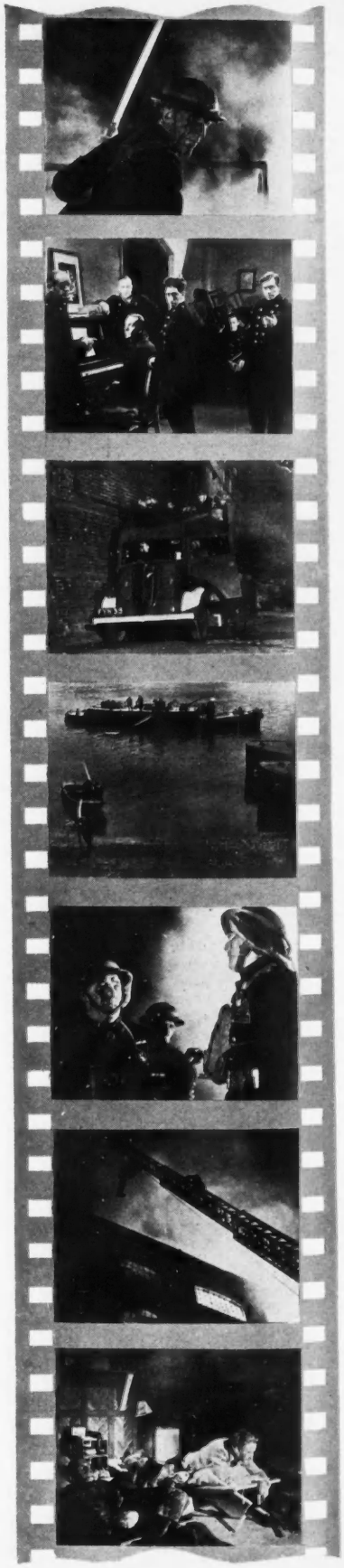
New Film Tells Story of Daily Life of British Firemen During Blitz

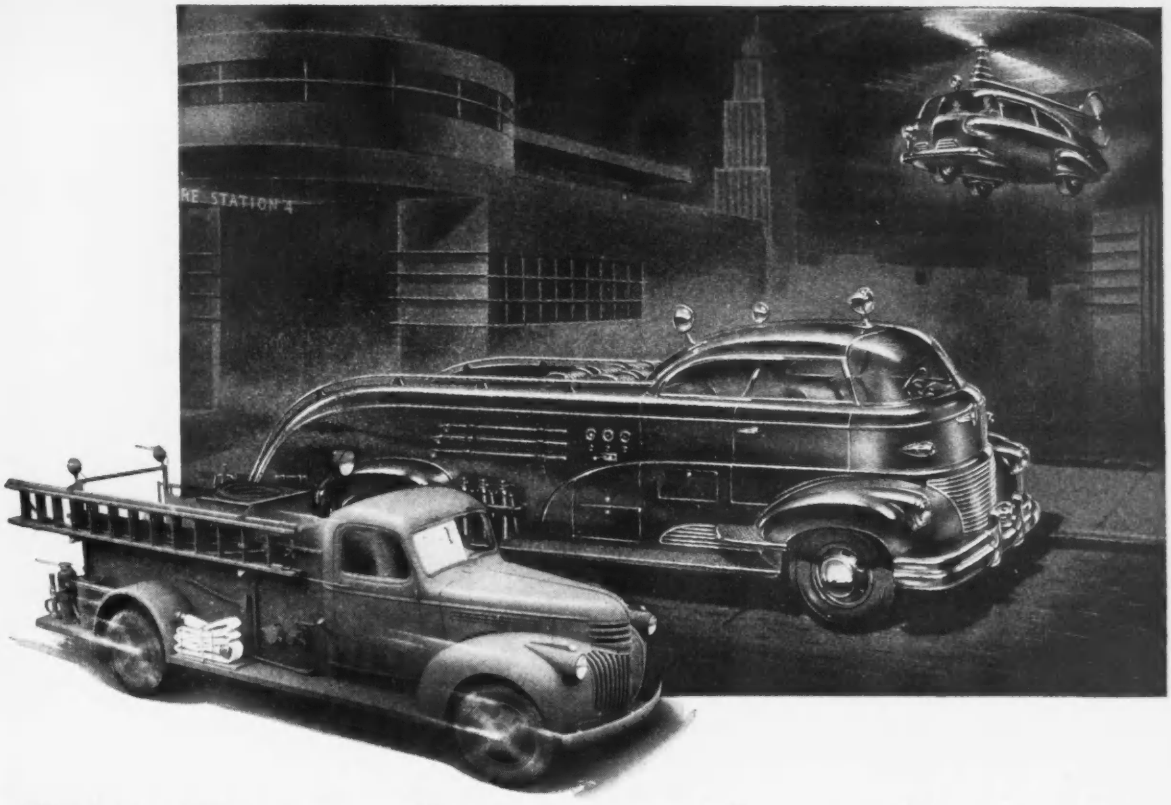
"I WAS A FIREMAN" tells, in sound motion pictures, the story of the British National Fire Service during those nights of 1940 when the Luftwaffe tried night after night to smash the morale of England by fire. Every part is played by a fireman. A blitzed warehouse was used at the locale of the film. Using flares, kerosene, cotton waste and burned wood from the ruins of the building the Crown Film Unit, who were making the film for the British Ministry of Information, set the warehouse ablaze while the firemen went through their work before the cameras. At one stage in the action the staged fire got out of hand and the actors became firemen in earnest. Before being brought under control the blaze developed into a realistic "nine pump fire."

The film is a tribute to the men of the National Fire Service. Every member of the cast played the parts he or she actually played in real life during the Blitz. They are members of the fire service who were chosen as typical of the service throughout the country. The principal part is played by Fred Griffiths, who was a London taxi driver before he joined the National Fire Service. Station Officer Gravett is an old London Fire Brigade man; Lorris Rey was an artist; Bill Sanson is what Fred Griffiths calls "a man of letters" and a pianist; John Barker hails from Manchester — a crowd of men who found themselves making a picture of the adventures they shared together in fighting the fire Blitz.

THE story of "I Was a Fireman," which is soon to be released in the United States, takes place at a dockside auxiliary fire service substation, back in London's air-raid season of the winter of 1940–41. The men spend the day servicing the equipment in expectation that the full moon will bring night raiders. The raiders come. The Auxiliary Fire Service men take two trailer pumps to deal with a warehouse fire. The fire is serious and the Local Control, then the District Control, and later the Brigade Headquarters are called for more apparatus. A bomb cuts the water mains and water has to be pumped from the river and lines are run ashore from fireboats. Two firemen are rescued from the roof of the warehouse by a turntable (aerial) ladder. A third fireman is killed when the roof collapses. The fire is controlled without damage to an ammunition ship menaced at a nearby dock.

The picture, 35 minutes in length, on 16mm. sound film, will be released about the middle of September.





GENERAL—*Dependable as Yesterday New as Tomorrow*

For high quality, flexibility, compactness, and long life, leading municipal and industrial hose buyers choose patented INNERFLEX. It pleases the fire chief and firemen. Available in 1½" and 2½" sizes, INNERFLEX has a maximum bursting strength of approximately 800 lbs. Details rushed on request.

EVERYWHERE—in small communities as well as cities like Detroit, Cleveland, St. Louis, Kansas City—the name "GENERAL" stands for dependability.

This has been true for years since the first General fire truck made its first run. General was established in 1903.

The hundreds of "Generals" already delivered to our armed forces, and the hundreds more under construction, are proving their ability to stand up *under fire*. At the same time no effort is being spared to fill the essential needs of municipalities—now and after the war.

Buy GENERAL, the dependable fire truck—pacesetter in design as well as performance. Write for specifications to meet your requirements. Our sales and engineering departments are at your disposal.

THE GENERAL FIRE TRUCK CO.

DIVISION OF THE GENERAL DETROIT CORPORATION

NEW YORK • 2200 E. JEFFERSON, DETROIT • CHICAGO

West Coast Affiliate: The General Pacific Corp., Seattle, San Francisco, Los Angeles

Now's the Time to Plan Your Fire Prevention Week Program

ALL indications point to the biggest and most interesting Fire Prevention Week program this year in the long history of the observance. Practically every fire department is in there pitching to make the home folk realize that we can't afford to burn down the home town this year.

Never has fire prevention had a more universal appeal. U. S. and Dominion government officials are backing the program. The U. S. Army is very active in the furtherance of fire prevention and fire protection because it knows that goods burned at home are just as surely lost to the war effort as those destroyed by direct enemy action.

Likewise the U. S. Office of Civilian Defense is playing a major roll in backing the fire prevention program.

It is expected that one of the big themes in fire safety during the coming year will be "FEED FIGHTERS — NOT FIRES." Secretary of Agriculture Wickard has said "Food will write the peace." There is also a big job to be done to make sure that fire does not destroy food needed for war workers and other civilians on the home front. For example, a local grocery store or food plant or warehouse destroyed by fire this year is certain to mean just that many more hungry mouths in some part of the war-stricken world.

Fire protection in war plants, likewise, continues to be of vital importance. The N.F.P.A. has issued a special industrial fire protection poster.

This year the N.F.P.A. has more interesting fire prevention literature available than ever before. The price list for quantities of these items are given above.

To meet requests for newspaper and radio publicity material for use in local campaigns the N.F.P.A. has prepared three types of publicity packets. These are: a Fire Chiefs' Packet, a Farm Fire Prevention Packet, and an Industrial Fire Prevention Publicity Packet.

The fire chiefs' packet includes radio scripts, newspaper releases, clip sheets for editors, and other items helpful in obtaining local publicity. While these packets sell at $1.00 each, single copies will be sent without charge upon request by fire chiefs or other officer in charge of local Fire Prevention Week publicity. Also helpful to any person planning a Fire Prevention Week program are the N.F.P.A. Fire Prevention Week Handbook and the N.F.P.A. pamphlet "Facts About Fire," listed above and included in the display on the opposite page.

PRICE LIST

1. **Town Plaster — $.50 per 100, $3.50 per 1,000.**
2. **Home Poster — $1.50 per 100, $10.00 per 1,000.**
3. **Farm Poster — $1.50 per 100, $10.00 per 1,000.**
4. **Community Poster — $1.50 per 100, $10.00 per 1,000.**
5. **Industrial Poster — $1.50 per 100, $10.00 per 1,000.**
6. **Flyer — $.50 per 100, $4.00 per 1,000.**
7. **Handbook — $.15 per copy, $12.50 per 100.**
8. **Publicity Packets — (a) for Fire Chiefs; (b) for Farm Groups. $1.00 each, single sets free to campaign sponsors.**
9. **Pamphlet — $.05 per copy, $4.00 per 100.**
10. **Picture Book — $.05 per copy, $4.00 per 100, $35.00 per 1,000.**
11. **Quiz — $1.00 per 100, $8.50 per 1,000.**

12(a). **Folder — $1.50 per 100, $10.00 per 1,000.**

12(b). **Folder — $1.50 per 100, $7.00 per 1,000.**

12(c). **Folder — $1.50 per 100, $8.50 per 1,000.**

All prices F.O.B. Boston. Orders shipped express collect unless other instructions received; small orders parcel post prepaid. Single copies of all items gratis to N.F.P.A. members and campaign sponsors. Items Nos. 2, 3, 4, 5, 6, 10, 12(a), (b), (c), have space for imprints of names of campaign sponsors or other local messages added as desired by purchasers. Imprinting done by N.F.P.A. subject to extra charges and delay.

Chief C. W. Alcorn, of the Rosedale Volunteer Fire Department of Allegheny County, Pennsylvania, reports an interesting public demonstration put on by that department on July 13th. The show was staged at a three-story public school building. The building was filled with a very dense smoke. At a given signal the fire apparatus and ambulance rolled in and went to work just as at a real fire. Firemen wearing masks entered and rescued two victims from the second floor by rope. The victims were revived by the inhalator squad using oxygen and artificial respiration. In the meantime, lines of 2½-inch hose and booster hose taken into the building by means of ladders and rope, were charged from the pumper. Another thrill was the setting of a record time of 49 seconds for drafting water. At a signal 150 feet of 2½-inch hose was pulled off by hand, suction hose was connected and the pump started. Chief Fire Coordinator Ross E. Blodgett, of Allehgeny County, served as timekeeper. Other activities included ladder evolutions, folding and throwing of salvage covers, replacing burst hose using a home-made hydraulic hose clamp, and putting out gasoline and oil fires with a new type fog applicator nozzle.

OCT. 3-9

FIRE PREVENTION WEEK

PROMOTION

MAKE EVERY MINUTE COUNT!

Order Your Supplies NOW!

1 Town Plaster — Red, White, and Blue. 31½ x 12. For pasting on store windows, billboards, vehicles, etc.

2 Home Poster — Red and Black, 12 x 16

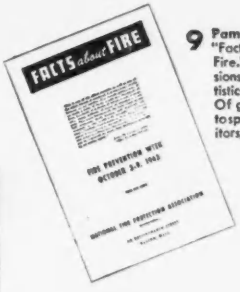
3 Farm Poster—Red and Black, 12 x 16

4 Community Poster— Red and Black, 12 x 16

5 Industrial Poster— Red and Black, 12 x 16.

7 Fire Prevention Week Handbook — Complete plans for a successful campaign.

10 Picture Book — Red and Black. 16 pages of outline drawings of fire hazards, for coloring by children.



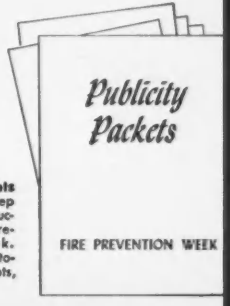
9 Pamphlet — "Facts About Fire." Discussions and statistics on fire. Of great value to speakers, editors, writers.

6 Flyer — Red and Black 5½ x 8½. A colorful envelope stuffer.

11 Quiz — Red and Black. A four-page fire quiz, illustrated, with correct answers.

(c) (b) (c)

12 Folders — In several colors. Each is 6¼ x 3¼. For including in letters, home distribution, etc.



8 Publicity Packets — Step - by - step packets of instructions on Fire Prevention Week. Contains news stories, radio scripts, etc.

ATLAS

for safety!

ATLAS LIFE NETS are designed for strength and safety with many special exclusive features, one of which is the PATENTED DUAL SHOCK ABSORBER, scientifically engineered with recoil mechanism similar to that used in modern artillery. Set firmly on the frame with shock absorber rods in firing position ready to instantly distribute the first shock of impact, permitting the 32 dual shock absorbers to absorb the balance of shock.

ATLAS LIFE NETS

are carried on apparatus made by:

American-LaFrance-Foamite Corporation
Buffalo Fire Appliance Corporation
Four Wheel Drive Auto Company
Mack Manufacturing Corporation
Maxim Motor Company
Peter Pirsch & Sons Company
The Seagrave Corporation
Ward LaFrance Truck Division
and others.

Replace your old nets by ordering ATLAS direct and specify ATLAS on new aerials and pumpers as part of the equipment.

★ *Ask for Particulars* ★

ATLAS SAFETY EQUIPMENT CO., Inc.

26 Warren St. ★ New York 7, N. Y.

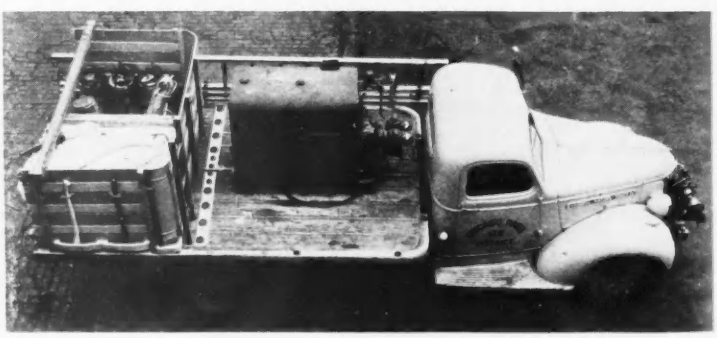
Fireman Have Difficulty as Fairgrounds Burn

THE reported difficulties met by the fire department of Gooding, Idaho, when buildings of the Gooding County Fair burned late last spring, are recorded here as another example of the importance of having approaches prepared in advance so that fire department pumpers may use existing water sources. A high wind and the short-handed condition of the fire department also contributed to the extent of this blaze.

The pumper entered from the west side of the fair grounds and the driver started toward the north end of the then burning fair barn, knowing this to be an ideal place from which to fight the fire. The main irrigation ditch was nearby and could supply ample water. Also hose and men would have been on the windward side and probably could have saved a large barn which had not yet ignited.

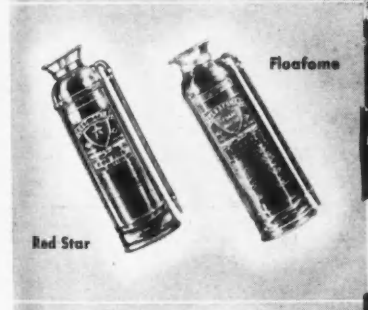
Unfortunately, the pumper sank hub-deep in mud a few feet off the driveway. A wrecker was attached but, to save time, efforts to move the truck were abandoned and the resourceful firemen diverted water from the main irrigation ditch to a lateral ditch near enough to the pumper to permit suction. Again bad luck intervened when the pumper became clogged with leaves and other foreign matter.

By the time this was removed the second barn had ignited and was beyond saving. The fire fighters then used their big line to save the Legion Memorial Association's armory building, the roof of which had ignited. The fair buildings that were destroyed were said to have included historical items. Had standard water holes, cisterns, or dry hydrants been available for pumper suction this fire should have been confined to one structure.



Here's a 1,000-gallon auxiliary pumper rigged up by the Chicago Fire Department, utilizing two OCD type 500-gallon pumper units and a truck of the Chicago Park District. One of the pumps is a front mounted unit powered by the truck motor. The other is a self-contained unit mounted on a turntable atop the truck. This makes it possible to turn the pump toward a suction supply on either side of the machine. In a test with the two pumps connected to a single hydrant, 1,208 gallons of water was delivered at 103 pounds nozzle pressure through a 2-inch monitor nozzle tip.

FROM
GENERAL DETROIT'S
FAMOUS ARSENAL
OF FIRE FIGHTERS



FIRE PROTECTION IS VICTORY EFFORT!

To the Nation's firemen, who daily risk their lives in a never ending homefront battle, America owes an acknowledged debt of gratitude.

You are soldiers, too. The enemy you engage is as fierce and dangerous as any in the Axis camp.

You need good weapons. General Detroit is proud to be able to supply them. Rely on General's complete line of fire fighting equipment, made by a company skilled in quality mass production —a leader in its field for more than 40 years!

THE GENERAL DETROIT CORP.

Former Name THE GENERAL FIRE TRUCK CORP.

Chicago **DETROIT** **New York**

West Coast Affiliate: THE GENERAL PACIFIC CORP.
SEATTLE • LOS ANGELES • SAN FRANCISCO

THE GENERAL DETROIT CORP.
2200 East Jefferson Ave., Detroit, Mich.

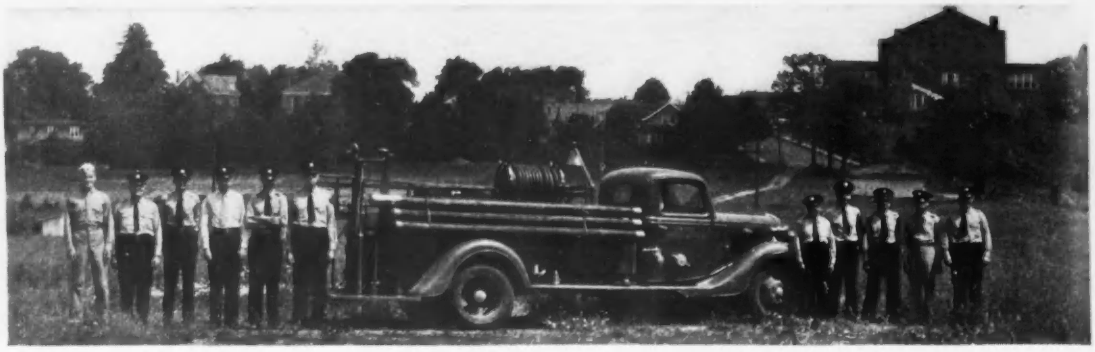
GENERAL DETROIT

Please send more information on your fire extinguishers and other equipment.

NAME_____

TITLE_____

JUST ATTACH THIS CONVENIENT COUPON TO YOUR LETTERHEAD AND MAIL



Volunteers Own a Community Park

ASSISTANT State Fire Marshal Howard P. Bock, of West Virginia, reports that the Kingwood Volunteer Fire Department in his state is owner of a 62-acre tract purchased by the company several years ago for use as a community park. The company with its apparatus is shown in the above picture taken on the land owned by the firemen. Fire Chief Scott M. Bundrop reports that the acquisition of this property was the result of the "co-operation and efforts of every member of the company."

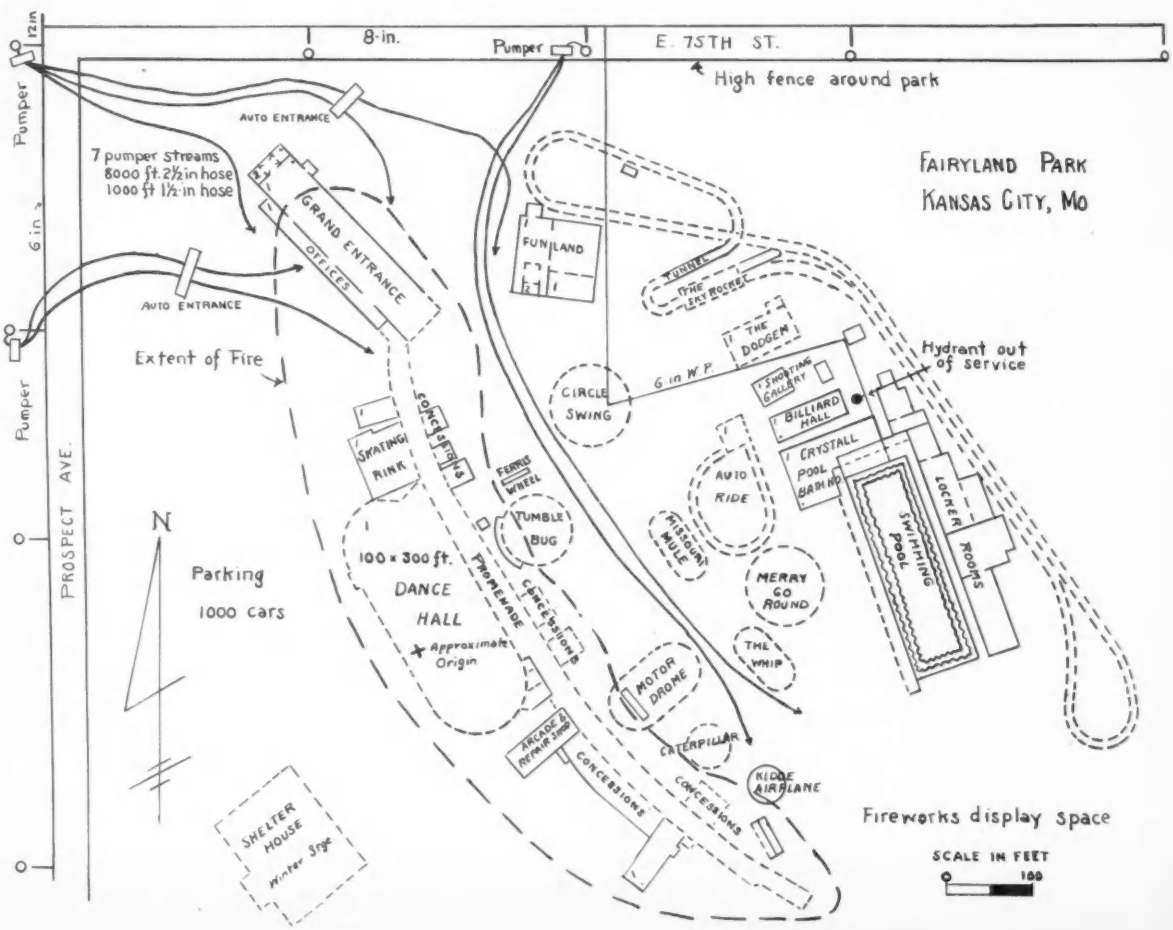
Prior to the war the park was the site of the annual Preston County Buckwheat Festival. Now, in co-operation with government efforts toward increased food production the department has donated a good portion of the land for Victory Gardens.

Fourteen large gardens have been under cultivation.

The department has plans drawn up to develop the property into a well-equipped and landscaped community park after the war. These plans include construction of a modern community building said to be greatly needed in the territory served by the department.

Amusement Park Fire

MANY firemen know that an amusement park blaze is one of the hottest and fastest spreading fires they may be called upon to fight. Chief John T. Lynch, of Kansas City, Missouri, sent in the diagram below showing the extent of a fire that swept the "Fairyland Park" in his city on the evening of June 27th. This establishment had cost half a million dollars when built 21 years ago, but had depreciated considerably. The location of hose lines shown are approximate as lines were moved over the 1,000-foot long fire area. Auxiliary firemen helped man the hose.



HELPING BOOST THE BOMBER

BIRTH RATE

How Cardox Systems Protect War Industries

- Timed discharges, as needed, through built-in piping systems . . . supplied instantly from a single storage unit holding tons (if required) of liquid Cardox CO_2.
- Mass discharge of Cardox CO_2 "knocks out" fire, by . . .
- Reducing oxygen content of the atmosphere below the concentration necessary for combustion, and . . .
- Cooling combustibles and fire zone below ignition temperature . . .
- Extinguishing fire quickly and completely *without* damage from extinguishing medium.

CARDOX—CO_2 Systems with Enhanced Fire Extinguishing Performance

A. Uniformity of CO_2 characteristics.

B. Extinguishing medium with uniformly greater cooling effect.

C. Accurate projection of CO_2 through greater distances.

D. Timed discharges, as needed, through built-in piping systems . . . supplied quickly from a single tank holding tons of liquid Cardox CO_2.

o Before a Flying Fortress . . . or any other war plane . . . takes to the air, an amazing number and variety of parts must be fabricated, assembled and tested. Should fire occur anywhere along the line . . . throwing production schedules out of time . . . the bomber birth rate is likely to take a dangerous nose dive.

There are Allied planes making it tough for the Axis today that wouldn't be in the air except for the fire extinguishing performance provided by Cardox Fire Extinguishing Systems.

Engineered applications of Cardox Systems are guarding against delay of vital war industry—for example, in plants producing:

Airplanes, Aviation Engines, Aviation Carburetors, Airplane Parts, Engine Parts, Plastics, Rubber Products, Processed Fabric, Tanks, Tank Engines, Cold Strip Steel, Armor Plate, Forgings, Solvents, Motor Fuel, Electric Power.

Cardox Fire Extinguishing Systems give a maximum of protection . . . guarding *time* as well as equipment . . . by providing (1) immediate extinguishment by cold, inert carbon dioxide, which quickly smothers and "cools out" large or small fires; (2) elimination of damage by the extinguishing medium means machines and materials are usually back in production quickly.

Today Cardox is concentrating its engineering and manufacturing facilities on two vital phases of America's current emergency: (1) The design and manufacture of Cardox Fire Extinguishing Systems needed by a wide range of war industries to maintain and increase the birth rate of battle equipment; (2) working with industry on plans to increase the efficiency of fire protection both today and after the war.

If you would like more information, write on your company letterhead for Bulletin 453.

CARDOX CORPORATION
BELL BUILDING • CHICAGO, ILLINOIS
District Offices in **New York • Washington Detroit • Cleveland • Atlanta • Pittsburgh San Francisco • Los Angeles • Seattle**

MASS DISCHARGE OF CO_2 · ENHANCED COOLING EFFECT · CENTRAL STORAGE UNIT · AMPLE CO_2 RESERVE · ENGINEERED SYSTEMS · MANUAL OR AUTOMATIC CONTROL

SEE LIQUID CO_2 at the Cardox Display International Association of Fire Chiefs Conference, Palmer House, Chicago, Aug. 31 - Sept. 3.

CARDOX

NON-DAMAGING FIRE EXTINGUISHING SYSTEMS

Go into action fast with these fire killers!

Just as the Commandos and Rangers smash the enemy, so do the men with *INDIAN* FIRE PUMPS smash fire. *INDIANS* have what it takes to finish off grass, rubbish, roof and building fires in a hurry. Penetrating strong stream shoots 30 to 50 ft. or nozzle may be instantly adjusted to a spray. Rust-proof 5-gal. tank carries slung on the back like a soldier's pack leaving arms free. Entire outfit is sturdily built for heavy duty. Solve the problem of reduced man power with more *INDIAN* FIRE PUMPS. Order now!

D. B. Smith & Co., Inc.
Utica, New York

Gentlemen:

Our Fire Department has 23 Indian fire pumps. We call them the one man fire department. Our Fire Department used brooms to put out brush fires, which took hours; now with the Indian Fire Pumps we put them out in minutes, not hours. We can't understand why more Fire Departments don't use the best Fire Pump on the market, which is the Indian Fire Pump. It is a pleasure to recommend the Indian Fire Pumps.

Clinton Weeks,
Fire Commissioner.

USE ONLY CLEAR WATER—NO CHEMICA

Attendants with INDIAN FIRE PUMPS Guard the Sacred Liberty

D. B. SMITH & CO., 412 Main St., UTICA, N. Y.

PACIFIC COAST BRANCH
Portable Equipment and Rubber Co., 611 Howard St., San Francisco, Cal.

MEMBERSHIP REPORT

N. F. P. A. Volunteer Firemen's Section

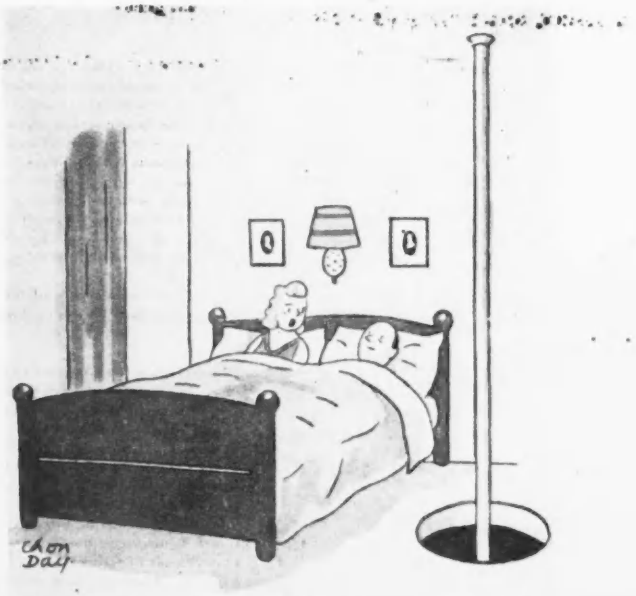
Every member receives a handsome membership certificate illustrating the history of fire protection.

MEMBERSHIP PLAN

- Through the Volunteer Firemen's Section, fire companies may become N.F.P.A. members. Each member fire company is entitled to have VOLUNTEER FIREMEN magazine sent to the homes of ten firemen.
- As a member, the fire company receives at headquarters a set of all other regular N.F.P.A. publications. This includes the QUARTERLY MAGAZINE and monthly NEWS LETTER.
- Membership in the National Fire Protection Association costs ten dollars per year. If more than ten firemen want to receive the magazine, an additional one dollar should be sent for each additional fireman enrolled.

LAST month 31 fire departments with 356 men were newly enrolled in the N.F.P.A. Volunteer Firemen's Section which now has a total of 912 departments. The new members are listed below:

Post Engineer, 25th AAF Supply Depot, Gadsden, Alabama
Post Engineer, Savannah Army Service Forces Depot, Savannah, Georgia
Post Engineer, Headquarters Camp Toccoa, Toccoa, Georgia
Madison Volunteer Fire Company, Madison, Illinois
Mt. Carmel Fire Department, Mt. Carmel, Illinois
Williamsburg Fire Dept., Williamsburg, Iowa
Atchison Fire Department, Atchison, Kansas
Chanute Fire Department, Chanute, Kansas
Iola Fire Dept., Iola, Kansas
Otsego Fire Department, Otsego, Michigan
Detroit Lakes Fire Department, Detroit Lakes, Minnesota
Shakopee Fire Department, Shakopee, Minnesota
Stillwater Fire Department, Stillwater, Minnesota
Red Wing Fire Department, Red Wing, Minnesota
Auburn Hose Company, Auburn, Nebraska
Ingersoll-Rand Headquarters Fire Company, Phillipsburg, New Jersey
Tenafly Fire Department, Tenafly, New Jersey
Copiague Fire Department, Copiague, New York
Brewster Aeronautical Corporation, Long Island City, New York
Point Pleasant Firemen's Assn., Point Pleasant, New York
Fremont Fire Department, Fremont, Ohio
Lakemore Fire Department, Lakemore, Ohio
Greenville Army Air Base, Fire Department, Greenville, South Carolina
Milan Fire Department, Milan, Tennessee
Grand Prairie Volunteer Fire Department, Grand Prairie, Texas
Clifton Forge Volunteer Firemen's Assn., Inc., Clifton Forge, Virginia
Ellensburg Fire Department, Ellensburg, Washington
Charleston Fire Department, Charleston, West Virginia
Thomas Fire Department, Thomas, West Virginia
Atlas Steel, Ltd., Welland, Ontario, Canada
Belleterre Quebec Mines, Ltd., Belleterre, Quebec, Canada



"I'll bet none of the other fire wardens have gone to all that trouble."

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WHY JOIN THE N.F.P.A.?

That's a reasonable question, and here's the answer!

N.F.P.A. membership brings you up-to-the-minute authoritative information on fire and fire protection. In a war of fire, that is the basic reason for joining the N.F.P.A. Membership marks you as a progressive, thinking fire department, not content to just drift along and depend upon chance for your professional news and technical information. In these days of rising costs and reduced dollar value, N.F.P.A. membership is one of the biggest bargains you'll find anywhere. Fire department members who joined one year ago have received nearly $30.00 worth of books, magazines, and pamphlets for their $10.00 annual dues.

Here is a partial list of what they got:

VOLUNTEER FIREMEN
(10 subscriptions for 12 months)
N.F.P.A. Quarterly
(1 years' subscription)
Monthly News-Letter
(up-to-date information)
Nat'l Fire Codes for Extinguishing & Alarm Equipment
National Fire Codes for the Prevention for Dust Explosions
Proceedings of Annual Meeting
Training Manual for Auxiliary Firemen
Training Manual for Industrial Fire Brigades
Volunteer Fire Departments
Fire Department Organization
National Defense Fires
Fires in One Year of War
Normandie Fire Report
Cocoanut Grove Fire Report
Sprinkler Protection in War Industries
Advance Reports of Technical Committees
Safeguarding Gas Appliances
Fall River Rubber Fire
Fighting Airplane Crash Fires
Fire Record of Cities
Table of Hazardous Chemicals
Water Spray Protection
Trucks for Auxiliary Fire Apparatus
Fire Retardant Treatments for Wood
Several New N.F.P.A. Standards
Fire Prevention Week Supplies
Numerous Leaflets and Posters

JOIN NOW!

National Fire Protection Assn.
60 Batterymarch St.
Boston 10, Mass.

New York State Fire Defense Training Course

By Edward F. Curren, Chief State Fire Instructor

PERHAPS one of the most interesting and modern fire defense training courses now being given to firemen in any state is that operating under the Office of War Training of the New York State War Council. This program is administered by Mr. Albert H. Hall, Director of the Office of War Training, who has been an active leader in firemen's training work for the past ten years. A staff of experienced fire department instructors are engaged in taking the program to the various fire departments of the State upon request. At the time of writing there are requests on hand for more than forty-one schools of various types, indicating the popular and interesting nature of the training given. Originally, schools were conducted on a county-wide basis, but because of travel conditions and industrial working hours, it has been found necessary to locate the schools in central communities and invite members of other nearby departments to enroll. This frequently results in class membership being made up of five or six fire departments. The number of persons in each class may range between 25 to 130. It has been found that improved results justify smaller classes thus bringing material to more localized groups. This permits the fitting of teaching procedure to the apparatus and tools actually available within the area of operation of the various county mutual aid plans.

By no stretch of the imagination can the present training program be classified as a series of lectures. In no instance is a field instructor permitted to read or give a lecture in any of our classes. We believe that using the eyes to gather knowledge is more effective than the lecture method. We point this out by the following phrase: how often have you heard a person remark? "I remember your face but I can't recall your name." This is due to the fact that you hear a man's name once, and then only for an instant, whereas, you are looking at his face all during your conversation. Accordingly, we use many visual aids by which the fireman learns with his eyes. Lesson sheets, pictures and charts are given to each enrollee and the suggestion is made that he obtain a binder in which to keep this material for future reference. Class participation is encouraged in every instance. Shown on this page are pictures of part of the demonstration material on exhibit at the recent New York State Fire Chiefs' Convention at Jamestown. An even more complete exhibit is scheduled for showing at the New York State Volunteer Firemen's Convention at Buffalo.

The course consists of fifteen lessons of two hour's duration, or an alternate arrangement of ten lessons of three hour's

1. MATERIAL USED IN BASIC TRAINING

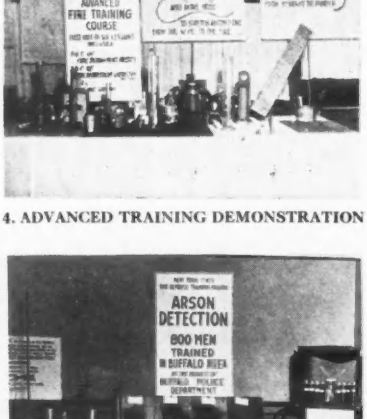
1. Demonstration material includes:
a. A model business block explaining obstruction by overhead wiring.
b. Need of fire stop construction.
c. Complete model village and model farm buildings with model fire apparatus used in lessons on "size up" and mutual aid.
d. Ventilation tower with stairwells, and other structural features. Also be used in demonstration of overhauling and salvage.
e. A combustion triangle, electrically operated, to show action of heat, fuel, and air in fire behavior.
f. Electric panel board to show importance of proper fuses.

2. FIRE BEHAVIOR DEMONSTRATION

2. Devices shown are:
a. Tripod for making fire demonstrations.
b. Gas generator to show action of soda-acid extinguishers.
c. Carbon dioxide gas demonstration.
d. Graduate showing generation of foam.
e. Gasoline explosion tube.
f. Flask for generating gases and pans showing action of chemicals with water.
g. Samples of flume-proof paper.
h. Demonstration of effect of atmospheric pressure on drafting operations.
i. Demonstration of need of tight fitting gears on rotary pump.
j. Switch mounting for electrical lesson.

3. RESCUE SQUAD TRAINING PROPS

3. Rescue Squad course including lessons on ropes and gases. More than 500 firemen have been trained in this course:
a. Demonstrations of life belts and ropes.
b. Rope coiling device with resulting coil shown over chimney of model house.
c. Model building demonstrating collapse action of floors in buildings of bearing wall construction. Device explains areas in which victims may still be alive.
d. A metal structure showing curtain wall construction.
e. Slide projector with slides showing various rescue problems.



4. ADVANCED TRAINING DEMONSTRATION

4. Demonstrations for Advanced Course:
a. Model flight of stairs showing vapor travel. Also a dust explosion can.
b. Graduate to show slow chemical reaction.
c. Explosion tube showing range of explosibility of various volatile liquids.
d. Crucible in which nitrate film is burned to explain action of oxides of nitrogen.
e. Large graduate to show delayed chemical action. This is a color change.
f. Large graduate to simulate action of carbon monoxide.
g. Cylinder to show baffle travel of smoke.
h. Trough to show action of flame arrester.

5. ARSON DETECTION METHODS

5. Materials for teaching Arson Detection:
a. Open cup test to explain flash points.
b. Use of nitrate film as a trailer.
c. Use of nitrate film with incendiary capsule as source of ignition.
d. Action of phosphorus in solid form and in solution.
e. Action of candles burning in kerosene.
f. Samples of flooring burned to show different behavior of floor treatments.
g. Plaster cast of foot print.
h. Samples of petroleum derivatives.
i. Water-soaked paper treated with oil.
g. Powder for detecting false alarmists.
h. Use of ultra violet light which has actually resulted in conviction for arson.

duration. In any case, the required number of hours is thirty, followed by an examination. The successful passing of the examination entitles the student to a New York State Regents Certificate. These certificates are accepted throughout the State of New York for credit in Civil Service examinations.

We subscribe to the theory that if the pupil hasn't learned — the teacher hasn't taught. For this reason there are at least ten questions at the end of each lesson which eliminates the possibility of the student not being familiar with the material in the early lessons before advancing to the later ones. The training program also makes use of many films as an aid to teaching.

One interesting innovation in the course is the plan of allowing the local fire chief to select the topic for lesson No. 15. We have found that some chiefs want certain subjects emphasized. For example, some want a lesson on first aid; others want a repeat lesson on "size up." The records show that at least twenty different subjects have been selected by chiefs as lesson No. 15.

Our advanced course is predicated somewhat on the material used in the standard fire training course published in Oklahoma and in use in a number of states. We have added a number of variations of interest to the volunteers of our State. Before teaching our "advanced course," we make the assertion to the class that no man should fear this course even though his formal education ceased 25 or 30 years ago, and even if it then did not exceed the level of the elementary grades. Everything in the course is in firemen's language and is accompanied by what we choose to call "Rube Goldberg" demonstrations. Even though we have had men in our classes who are not able to write to any great extent, a poll taken among the students asking whether the material is interesting and informative has never disclosed any persons who indicated that the material was over their heads.

IN addition to the work of conducting the various fire department training schools, our fire training field staff has been trained in industrial plant inspection work. They are also being trained in arson investigation methods. Each instructor has equipment sufficient to give a demonstration which parallels that given by Professor Davis, of the Massachusetts Institute of Technology, as recently described in *Life Magazine*. Every experiment conducted by Professor Davis is used by our force and the chief instructor has personally been using each of these experiments and many additional ones for the past five years.

The field instructors also have been active in work for the U. S. Army Ordnance, U. S. Coast Guard and the training of plant fire brigades.

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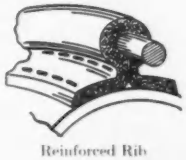

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FIREMAN'S HELMET

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★ ★ ★ ★ ★ *These Modern Dryers*

are doing a fine job of *conserving America's Hose Supply* in Army Posts, Navy Yards, Naval Air Stations, Marine Stations, Ordnance Works, Ammunition Depots, Airplane Factories, Tank Arsenals, Steel Mills, Shipyards, Engine and Propeller Plants, Chemical and Electrical Works as well as in Cities, Towns and Villages throughout the "Arsenal of Democracy."

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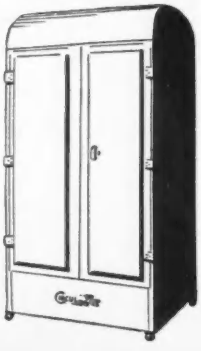
They *save RUBBER* and *COTTON* . . . They are compact in size and require *very little floor space*. . . . Their quick-drying rate lessens the need for large reserve hose supplies. . . . They *improve new station design* by eliminating costly towers and unsightly hose racks . . . are *easier to use* and economical in service . . . and . . . they make good hose last longer by *air-conditioning as they dry*.



THE CIRCUL-AIR CORPORATION
303 DWIGHT BLDG. . . JACKSON, MICHIGAN

History of the Booster Tank

(*Continued from Page 13*)

crews. They were used both for first aid service and for spark chasing during major fires in those days when the majority of buildings had wooden shingle roofs. Most of the American departments were equipped with chemicals by the turn of the century.

About the same time, European fire departments resorted to the idea of using tanks of water expelled by carbon dioxide gas. These tanks may be called the forerunners of the present-day boosters. These carbon dioxide tanks, or "gas engines" as they were called had some of the advantages of the present-day boosters. Enough carbon dioxide could be carried in pressure bottles to discharge a 150-gallon water tank several times. These tanks could supply a line of 1½-inch hose. This hose was attached to a 4-way wye connection. After a hydrant or steamer line was ready, the first aid tank was shut off and the line continued without interruption, while the first aid equipment went back to quarters. Two additional 1½-inch lines could be added to the gated wye if desired.

As early as 1903, "gas engines" were in common use in Germany and Austria. Electric-driven motor apparatus introduced about 1906 and 1907 were also equipped with water tanks using carbon dioxide. The London, England, fire brigade had 26 water tanks in service on its motorized apparatus by 1912. This type of apparatus was known as a "first aid escape van." The words "first aid" implied the water tanks, and "escapes" referred to the 55 or 70-foot extension ladders fitted with wheels, carried by this type of apparatus.

The fire department of St. Petersburg (now Leningrad), Russia, introduced carbon dioxide charged tanks of about 150 gallons capacity in 1906. By 1916 there were 17 such tanks in service, ranging up to 180 gallons capacity.

THE true booster pump appears to have first been introduced in Paris, France, in 1908. By the time of World War I, all stations of the Paris Fire Brigade had equipped small automobile pumpers carrying 80 to 100-gallon water tanks. As the Leningrad and Moscow fire departments in Russia became motorized they placed tanks on light-weight trucks operated in conjunction with motor pumpers.

The idea of using pure water tanks instead of soda-acid chemicals did not become widespread in this country until relatively recent years. For example, the American LaFrance Foamite Corporation has furnished booster pumps as standard equipment on their apparatus for 15 years and has not furnished any chemical tanks on pumpers since 1930. This company has, however, been supplying booster equipment on request since 1915 when it delivered several pieces equipped with booster pumps to Washington, D. C.

DELAYED ALARMS - *deadlier than Sabotage*

ENCOURAGE THE PROMPT USE OF FIRE ALARM BOXES

"When Fire Occurs - Call the Fire Department"?

Of Course, any Child should know the answer, it is elementary —but adults who are responsible for the safety of life and property and for the safety of materials urgently needed for the National Defense frequently overlook it.

The record is replete with instances where the Fire Department was not promptly notified—a delay of 15 minutes in the case of one of the greatest steamships afloat; a delay of 6 minutes or more in the case of a fire which destroyed rubber and buildings valued at $11,000,000.00; and 16 minutes delay in the case of a waterfront fire destroying a million dollars in property value are typical cases.

The Fire Department may be called (1) by the fire alarm box, (2) by telephone, or (3) a messenger may run to the nearest fire station frequently a mile or more distant from the scene of fire. Time, however, is the vital factor when fire is menacing human life and destroying property and the Fire Alarm System, according to all authorities, provides the swiftest and most dependable means of calling the fire department.

YOUR POST-WAR PROGRAM!

Your Program for post-war improvements is incomplete if it fails to include adequate Fire Alarm Protection. Gamewell systems—effective—reliable—adequate—priced within the financial resources of every community—are available and we freely cooperate in planning this vitally essential protection. Write us for detailed information.

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For communities which do not prohibit the use of sirens, FEDERAL offers a wide variety of electric sirens.

WRITE FOR BULLETIN!

FEDERAL ELECTRIC CO., Inc.

SIREN HEADQUARTERS

8717 South State Street Chicago, Illinois

Massillon's Greatest Fire

(*Continued from Page 9*)

From the experience encountered in this fire, the importance of covering all exposures (at the possible cost of losing one property already hopelessly involved), becomes increasingly apparent. In a conflagration of such magnitude the desire to extinguish an individual fire becomes of less importance than the job of covering all exposed property.

"Life's Most Embarrassing Moment"

ACCORDING to a fire report, Samuel Kendis a Los Angeles insurance agent was going along Wiltshire Boulevard one evening when suddenly he discovered smoke in a grocery store. Here was the big chance to check up personally, and find out whether the far-famed Los Angeles firemen were quite as fast as they are cracked up to be.

Kendis pulled out his watch. It was exactly 7:03 P.M. He waited impatiently but there was no sign of the fire department. He strained his ears but could hear no sirens. The flames were spreading. They rapidly extended to the large wooden arched roof of the structure which was soon in a state of collapse. Still no firemen!

More than ten minutes later other persons attracted by the blaze called the fire department. Overanxious to check the efficiency of the fire department, insurance man Kendis had neglected to turn in an alarm. Newspapers placed the loss at $70,000.

One For The Books

WHEN you consider the small things some men will fight about, it's a wonder that there aren't even more wars. A superior court jury recently awarded $2,000 to a former fire chief for personal damages sustained in an altercation with the present chief over the training of auxiliary firemen. The two men had disagreed violently on the subject and tried to settle their differences the hard way. Both were suspended after their squabble, the chief subsequently resigning.

ANNOUNCEMENT

MR. JACK BAILEY, located at Memorial Hall, Trail, B. C., is anxious to correspond with industrial safety men in plants having gas hazards such as chlorine, sulfur dioxide, carbon dioxide and other gases which necessitate the use of oxygen breathing apparatus. Mr. Bailey is in charge of rescue operations at a large industrial plant and believes it would be helpful if men engaged in similar work could correspond regarding their rescue methods.

"Help Guard the Home Front Against Fire"

FIRE PREVENTION WEEK • OCTOBER 3RD TO 9TH, 1943

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effective insurance against fire hazard

ALBI-FIREPEL "S" is a fire retardant coating material designed to reduce the Fire Hazard of interior building surfaces of wood and other combustible materials. Protects against the intense, sustained fire.

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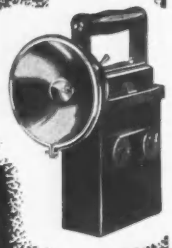
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FYR-FYTER WILL HAVE AN ENLARGED AND IMPROVED LINE
We are hitting the Axis with all we've got. Consequently, there are no Fyr-Fyters available for civilian use except on the highest priority ratings. When the story of Victory is written, our enlarged manufacturing facilities will again be devoted to the production of Fyr-Fyter Extinguishers for civilian fire protection.
We are old hands at converting from war-time to peace-time production. We served the government in World War I and when the Armistice was signed we immediately began to produce for civilian use. We promise that this performance will be repeated.
Remember FYR-FYTER
In the meantime, remember our name. You will have obsolete, worn-out equipment you will want to replace as soon as we are in full civilian production again. We will be happy to serve you.

THE FYR-FYTER CO.
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ARMY E NAVY
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A Fireman Teaches Fire Prevention

By Warren Y. Kimball

RED was sitting at the watch desk of the fire station when I dropped in on a Saturday afternoon. "I like to talk about fire prevention," he said. "Did I ever tell you about some of the fire prevention talks the Chief had me give down at the primary school? Fire prevention can be made interesting for children. If it is told in terms they can understand they will never forget it. Take, for example, the work of Smoky Rogers, the famous fire clown. There are records of numerous children whose lives have been saved because they did what Smoky told them to do when their clothes caught fire.

"My method is a bit different," he continued, "but the children seem to like it. I take common children's fairy stories that they all know and make the characters over into fire prevention characters."

"That sounds like a plan that any fireman without training in public speaking could carry out," I observed. "How about jotting down for me one or two of the typical stories you use?"

"All right. If you think that would be of help to any other firemen. I will write out a typical fire prevention story or skit based upon the familiar childhood tale of 'Little Red Riding Hood.' Of course, such a story or plot must be varied according to the age of the children you are going to address. Older children, such as high school students, are very keen and want more technical information than you can give to little tots. You have to be careful to give them factual details. But even there you can build your fire prevention plot around some familiar story."

"After all," I observed, "the old children's stories were merely an effort to teach childhood lessons of obedience and the reward of good behavior. There is no reason why they cannot be modernized to teach fire prevention."

The following Saturday afternoon I again dropped in at the fire house. The fire business had hit its mid-summer slump and I found Red on his bunk. From his pocket he pulled out a sheet of typewritten notes. "Sit on a bunk and read it back to me," he suggested. "This is how I would tell it to the smaller children."

THE story read as follows:

This is Fire Prevention Week and I have a little job for you to do. But first I want to tell you a story, one you have already heard. But we will make believe that we have new people and new things in the story.

We will have a mother, and a child, and a grandmother, and a wolf, and a hunter, just as in "Little Red Riding Hood." But we will make believe that they are really places, and people and things we know.

The mother will be your mother, or your teacher, the person who tells you how to prevent fire by not playing with matches and by not cleaning things with gasoline or by not spilling kerosene.

Little Red Riding Hood will be you — and you — and you (pointing). Like Little Red Riding Hood you will do what you are told. When mother tells you to go through the woods (we will pretend that the woods are wherever we are told to go) you will always be careful, so as not to bring sorrow to yourself or the ones you love.

Mother tells you to take this basket of good things to Grandma's. The good things are your good deeds and good behavior which you know will please Grandma. So off you go all by yourself.

As you stop to pick flowers who comes along trying to make you do wrong — the Big Bad Wolf. You know him. He is the unwanted fire that is ready to burn you up, and will burn your hands and fingers if you touch him. He tries to get you to play with a bonfire so that he can set your clothes afire. But you do just as Little Red Riding Hood did and walk the other way.

The wolf runs to Grandma's house and disguises himself in Grandma's bed. You do not recognize the danger when you first go in. Then you find out it is the wolf and cry for help. The huntsman hears the cry and rushes in and kills the wolf.

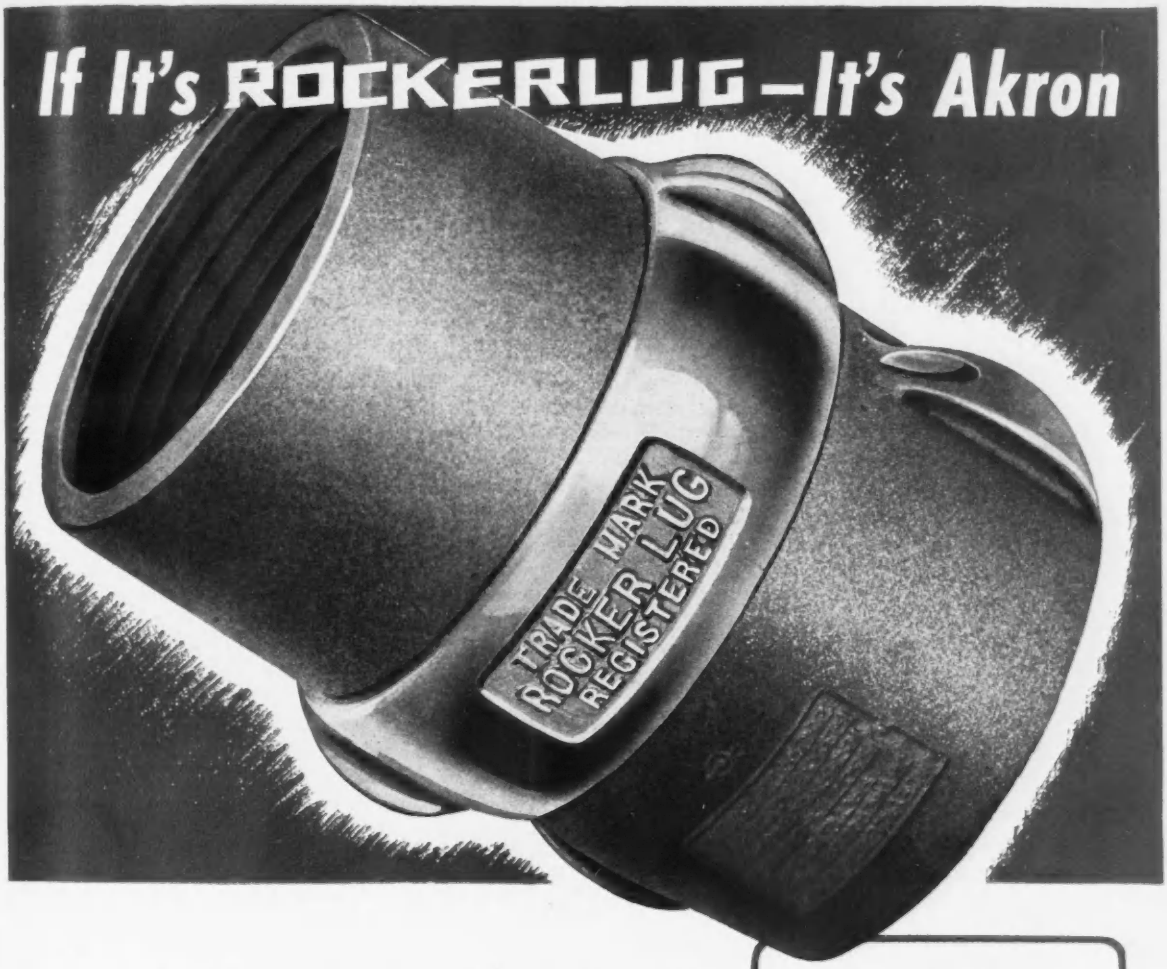
Who is the huntsman? It is your fire department that rushes to kill the fire as soon as you give the alarm. You call for help right away as soon as you discover the wolf — just as you call the firemen the moment you find a fire. If you don't you may be trapped and eaten up.

After the wolf is dead Grandma comes out of hiding. She wasn't eaten after all. In our story, Grandma may be called the fire prevention rules and laws that teach us how to be safe and happy. Just like our own Grandma, they tell us what things are wrong and how to keep from being hurt by fire.

NOW here is the job I want you to do. Please do as you are told by mother and your teacher so that you will not be afraid of the old wolf but will be able to play and be happy.

As I finished reading his notes, Red observed, "There are men in our department who got their first fire prevention lessons from my talks. They say that they still remember those early lessons. Some firemen may ask, 'Why should firemen be bothered with teaching fire prevention?' Here's my answer. You wouldn't have found me resting on my bunk when you came in, if fire prevention did not work."

If It's ROCKERLUG—It's Akron



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GENUINE ROCKERLUG COUPLINGS

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A guarantee of instant engagement in daylight or darkness. An assurance against loss of time in getting hose into action.

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Completely Revised Text

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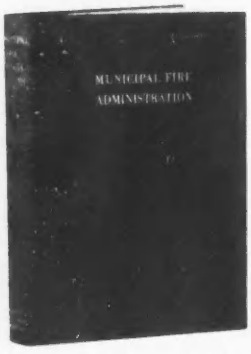

This 600-page text on Municipal Fire Administration contains matter never before in print.

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The Municipal Fire Problem.
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Designed primarily for use in the practical correspondence course in Municipal Fire Administration, sponsored by the International City Managers' Association, this new text is of value to everyone interested in the direction or operation of a fire department.

The problems of volunteer and part-paid fire departments, including those of equipment, rural water supplies, mutual aid and county organization, fire fighting tactics and strategy, are given attention.

The text is furnished as part of the $35 fee covering the complete cost to a student of the course. This fee includes the review and correction of lesson papers. In no way can men studying for promotion in a fire department receive a more complete understanding of fire department operations and administrative problems.

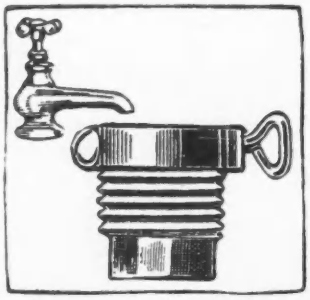
Copies may also be obtained by persons not enrolling in the course at a cost of $7.50.

Institute for Training in Municipal Administration

1313 East 60th St., Chicago, Ill.

MANUFACTURERS' ANNOUNCEMENTS

THE value of the garden hose as an effective adjunct to home fire protection is well known to firemen. The usefulness of this common equipment is often limited, however, because of the lack of threaded faucets on the kitchen and bath-



room plumbing fixtures. One of the niftiest gadgets we have seen to answer this problem is an adapter manufactured by Sipho-O Products Corp., 60 India St., Boston, Mass. By means of this device, which retails for fifty cents, the home owner can attach his garden hose to any smooth faucet in the house. A relatively short section of hose, say twenty-five feet, equipped with a nozzle and one of these adapters would make a desirable piece of first aid fire equipment for any home.

●

D. B. SMITH & CO., of Utica, N. Y., manufacturers of the well known INDIAN Fire Pump pictured above, urge all users of these pumps to check their equipment at this time for necessary repairs and replacements. The manufacturer has printed a display sheet and price list of replacement parts for the INDIAN Fire Pump, a copy of which will be sent by them to any INDIAN user who wants one.

●

IF storage piles of coal are being accumulated in your community for use next winter, Coal Specialties Co., 50 Church St., New York City, has a message of interest to you. This company manufactures a device designed to detect and warn against spontaneous heating within a coal pile. Known as the "Hot Spot Indicator," the device resembles a metal pipe some fifteen feet in length. Driven deep into a coal pile, if heating occurs in excess of 150° F., a fusible link inside the pipe melts allowing the top of the indicator to extend upward into plain view. It is then possible to overhaul the coal pile before spontaneous ignition takes place. The company also manufactures a "Hot Spot Quencher" which it recommends for reducing internal heating detected by the Indicator. The "Quencher" is essentially a long pipe which is driven into the coal pile until the hot area is reached. The pipe is then filled with cracked "dry ice" and the expanding carbon dioxide gas allowed to cool the heated area. For a leaflet giving complete details about this equipment please write direct to the manufacturer at the address given above.

●

A NEW gas mask, the "Protexall," is announced by American-LaFrance-Foamite Corp., Elmira, N. Y. It has the approval of the U. S. Bureau of Mines for respiratory protection against acid gases, organic vapors, ammonia, carbon monoxide, and toxic smokes where there is

sufficient oxygen to support life. The molded rubber facepiece is designed to provide a gas-tight fit on any face. Large contoured lenses of shatter-proof safety glass give "Full-view" vision. Timer tells the length of time the mask can be safely worn. Canister gives approximately two hours service, according to the manufacturer.

●

FOR use in extinguishing fires on the human body, the Cantflame Fireproofing Co., of Newton, N. H., manufactures a flame-proofed blanket. Wrapped around a person whose clothing is afire, it will promptly smother the flames. The waterproof canvas knapsack container is well suited to use by fire department personnel and other mobile first-aid and civilian defense units. The manufacturer states that he is available throughout New England for the purpose of flameproofing scenery and draperies, utilizing the same chemicals as are used in the Fire Blanket.

●

THE Pacific Marine Supply Co., of Seattle, Wash., offers to our readers an attractive and useful 70-page booklet on the important subject of forest and brush fire fighting. Entitled "Fire Fighting with Water," the booklet is much more than a catalogue of the many models of portable pumps manufactured by the Pacific Marine Supply Co., although details of this equipment are quite properly covered in the text. The booklet is full of helpful hints and information of practical value to any fire department. Write for your copy today!

Why doesn't somebody do something?

. . . or don't they know any better?

A sudden blaze calls for fast action . . . grab an extinguisher . . . hit the fire in a hurry.

Yet it takes "know how." Your men must know how to pick the *right* extinguisher, must know how to handle it. *Have you taught them these simple, important facts?*

Demonstrations do this teaching job best. Show your employees real fires, with real extinguishers in action. A series of well-run demonstrations may help save your plant, if fire breaks out.

So Walter Kidde & Company have prepared "How To Teach Fire-Fighting." It tells how to make these demonstrations most effective. Write for your plant's copy. It's free, of course. Walter Kidde & Company, Inc., 949 Main Street, Belleville, N. J.

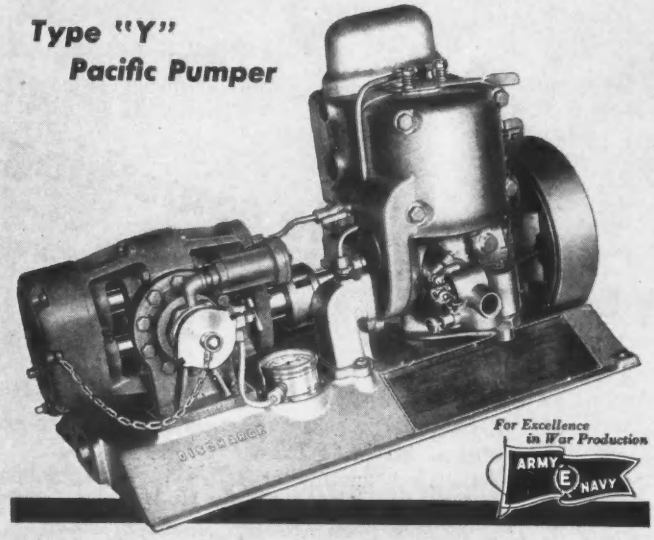
THIS ADVERTISEMENT IS ONE OF A SERIES APPEARING CURRENTLY IN INDUSTRIAL PUBLICATIONS

MOST POWERFUL PORTABLE PUMPER

for its Weight and Size

EVER BUILT!

Type "Y"
Pacific Pumper



Free! JUST OFF THE PRESS—The third edition of our original, "FIGHT FIRE WITH WATER", has been completely revised. It is now more than a booklet—it is "A Manual". Write today for your free copy.

FIRE FIGHTING EQUIPMENT DIVISION

PACIFIC MARINE SUPPLY COMPANY

SEATTLE, WASHINGTON

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When you write to advertisers, please mention VOLUNTEER FIREMEN

OCD Fire Hose Saves V-Gardens

FIVE hundred and eighty gallons a minute of man-made rain fell last night on 51 Victory gardens at Beach drive and East-West highway while their owners stood on the side and cheered the efforts of Montgomery County auxiliary firemen.

The auxiliary firemen pumped water from the nearby Rock Creek through two lines of OCD hose, totaling 1,680 feet, pointing the nozzles skyward so that the water fell like a heavy rain.

Judge Albert E. Brault, Civilian Defense director, who had conceived the idea in an effort to save the hundreds of Victory gardens slowly burning up in the county, said the test made last night was a success and that the plan will be extended to other Victory garden areas which are close enough to streams, wells or other sources of water other than Washington Suburban Sanitary Commission mains.

Deputy Chief Donald Reed, Chevy Chase Fire Department, brought six paid firemen from that department, who were going off shift and who had volunteered to aid in the effort, to assist the auxiliary firemen in manning the heavy hose nozzles.

A technique was developed whereby the firemen would soak one section until the water started to run off and then move to the next eventually working their way to the beginning again for a second soaking.

Washington Post, August 11.

FIGHT YOUR FIRES *with*

600 lb. FOG AT THE NOZZLE

BEAN - FMC

ORIGINAL

FOG FIRE FIGHTERS

FOOD MACHINERY CORPORATION

JOHN BEAN MFG. CO. DIVISION
Lansing, Michigan

BEAN-CUTLER DIVISION
San Jose, California

NEVER CONFUSE BEAN-FMC HIGH PRESSURE 600 LBS. *AT THE NOZZLE* . . WITH OTHER SO CALLED HIGH PRESSURES OF 150 TO 250 LBS. *AT THE PUMP*

. . . YOU NEED HIGH PRESSURE

You can extinguish 95 to 98% of your fires with 600 pound nozzle pressure and with little or no water damage.

High pressure makes a valuable and modernizing addition to your present equipment and will give greater protection plus a marked reduction in fire losses.

High pressure is the greatest contribution ever made to fire fighting. It will become a regular part of fire fighting technique.

600 LBS. NOZZLE PRESSURE - 10 TIMES MORE EFFECTIVE

High pressure atomization (600 pounds at nozzle, 750 to 800 pounds at the pump) is 10 to 35 times as efficient as low pressure. The water is broken up so fine that one gallon of high pressure water will absorb 10 to 35 times as much heat as the same amount of water at usual low pressures. While doing this enormous amount of cooling, it also has a tremendous smothering effect. The velocity at this pressure also has a tendency to blow the fire out, and the frequency of replacement of the used-up fog is important in cooling, smothering and preventing re-ignition.

MULTIPLY BY TEN

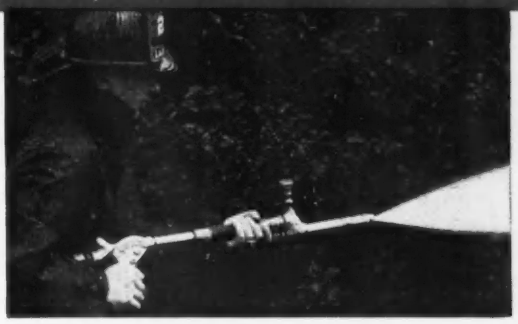
Take a 400 gallon supply of water on a fire truck. Multiply this by the conservative figure of 10 times greater efficiency and you have the fire quenching ability of 4,000 gallons of low pressure water.

Or take a 60 G.P.M. high pressure pump and multiply the 60 by the 10 times increased efficiency, and you have the fire quenching ability of a 600 gallon per minute low pressure pump.

SPEED

You carry your water right to the fire and immediately upon arrival, you start to work on the fire. When used in municipalities, you extinguish the fire in many cases before the $2\frac{1}{2}''$ line is ready. For rural fires the same condition is true, plus the fact that you have at least a 10 to 1 better chance of putting out the fires, as no water or insufficient water would be available for low pressure pumper type fire fighting.

BEAN-FMC UNIVERSAL FOG GUN



When you get to a fire, you cannot waste time changing guns. The **BEAN-FMC** Fog Fire Fighter Gun is universal for all types of fires. Above is shown the fireman holding the gun, with left hand on adjusting barrel for changing it from straight stream down to any degree of fog needed for any fire.

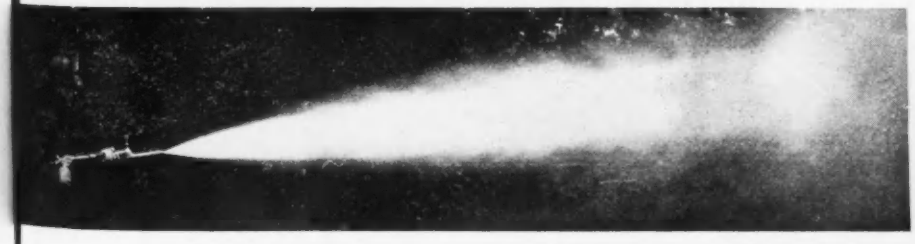
It is a one-man job to fight fire with this gun. With pressure on, it practically carries

itself and can be poked into cellars, attics or holes in partitions. It is fast in fighting fires, when you cannot get inside, simply push it through an opening and turn it on. It is trigger controlled with a trigger lock for continuous use.

If the fire is intensely hot, use the protecting spray nozzle which insulates the fireman's face from the heat. (Above)

THIS GUN HAS THREE DISTINCT TYPES OF FOG:

1. Straight stream for carrying power, or demolition or penetration effect when needed. (Above)



2. The semi-fog which has considerable carrying power and great fire extinguishing effect. (Above)
3. Close-up fog for closed areas, packs the room full of fine fog particles to give the maximum cooling and smothering effect. (Below)

Regardless of the adjustment of the gun, you always get the finely atomized fog which is possible only from 600 pounds or more *nozzle* pressure.

It's the 600 pound *nozzle* pressure that makes the fog. After which the gun is a convenient means of getting the type of fog you want and putting it where you need it.

The Universal type of High Pressure Fire truck. 300 gallons of water, 2 lengths of hose and 2 fire guns of 30 gallons capacity, each. 80 G.P.M. pump at 600 pounds at NOZZLE pressure. Power take-off drive.

The above unit is especially suited to a combination of city and rural fires. The 2-30 gallon fire guns will handle the usual run of residence, barn, small building, basement fires, as well as grass and forest fires. This model is also used as a crash truck at airports for gasoline fires and for industrial use in large factories.

* * * * *

Below is shown a unit especially designed for small town and rural fires, as it carries 400 gallons of water and has attachments for taking water from wells or creeks. It carries complete equipment including ladders, lights, axes, etc. Many units of this type, now in use, have paid for themselves in a short time in cost of buildings saved.

Here again, is the value of 600 pound fog for complete extinguishment where with other systems, you would have had a total loss due to lack of water, or if you had a sufficient supply of water for low pressure quenching, you would have had excessive water damage.

FOR ANY TYPE OF FIRE
FOR MOST ANY MAKE OF TRUCK

BEAN-FMC STANDARD UNITS

BEAN-FMC High Pressure Fog Fire Fighters are available in several models for standard makes of trucks. Operated by a power take-off unit, you are assured of ample power for operating the pump. The High Pressure Pumps used on these trucks are of our own manufacture and have been the outstanding High Pressure Pumps in other fields for many years. The pump is the heart of the fire truck and the built-in ruggedness of these pumps is positive assurance of "Pressure When You Need It." These pumps are actually built for these high pressures and are not to be compared with low pressure pumps of 100 to 250 pounds pressure.

Above is shown a complete standard power take-off drive and 60 G.P.M. unit, 600 pound nozzle pressure, 3 cylinder, horizontal, plunger type pump. (Can also be furnished with cab.) It carries 2-30 G.P.M. Fog Fire Fighter Guns. It is completely equipped for both municipal and rural fire fighting. Has carrying space for 2½" hose. Accessories are optional.

HIGH AND LOW PRESSURE COMPARISON

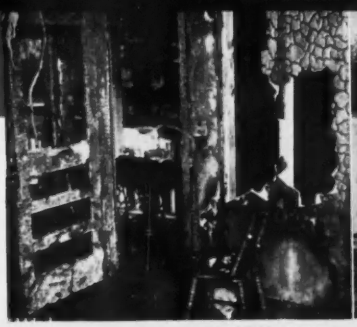
Here is a comparison of high and low pressure water on the same fire. "On a certain rural fire a low pressure booster pump unit with 250 gallons of water arrived at the fire several minutes ahead of the high pressure unit with 300 gallons of water from another station located at a greater distance. It was a one-story frame building about 30 x 40, insulated with saw dust and hemlock boards. The entire building was afire and the low pressure booster put 250 gallons of low pressure water on it with no apparent effect. About the time they ran out of water, the high pressure unit arrived and put 2 lines into action, knocked the fire down in 30 seconds and cleaned it up and had water left out of their 300 gallons. The high pressure unit saved 2 buildings adjoining, as well as a garage and the house. See picture of this building on Page 7. This offers an actual comparison on the same fire of both high and low pressure.

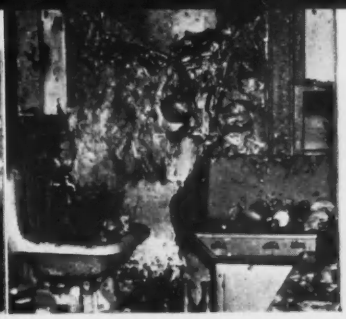
KEEPING THE FLAMES AWAY FROM THE CAR WHILE GASOLINE IS BEING EXTINGUISHED.

Fireman starts on fire with straight stream while walking up to it.

The fog is taking effect inside as can be seen by steam pouring out.

Closer up he begins get quicker





BEAN-FMC 600 lb. NOZZLE PRESSURE FOG

Extinquished these fires with a small amount of water.

Most of these fires occurred at night when it was impossible to photograph the fires themselves.

using more fog to action.

The fire is out in less than one minute.

The full fog is used with quick results.

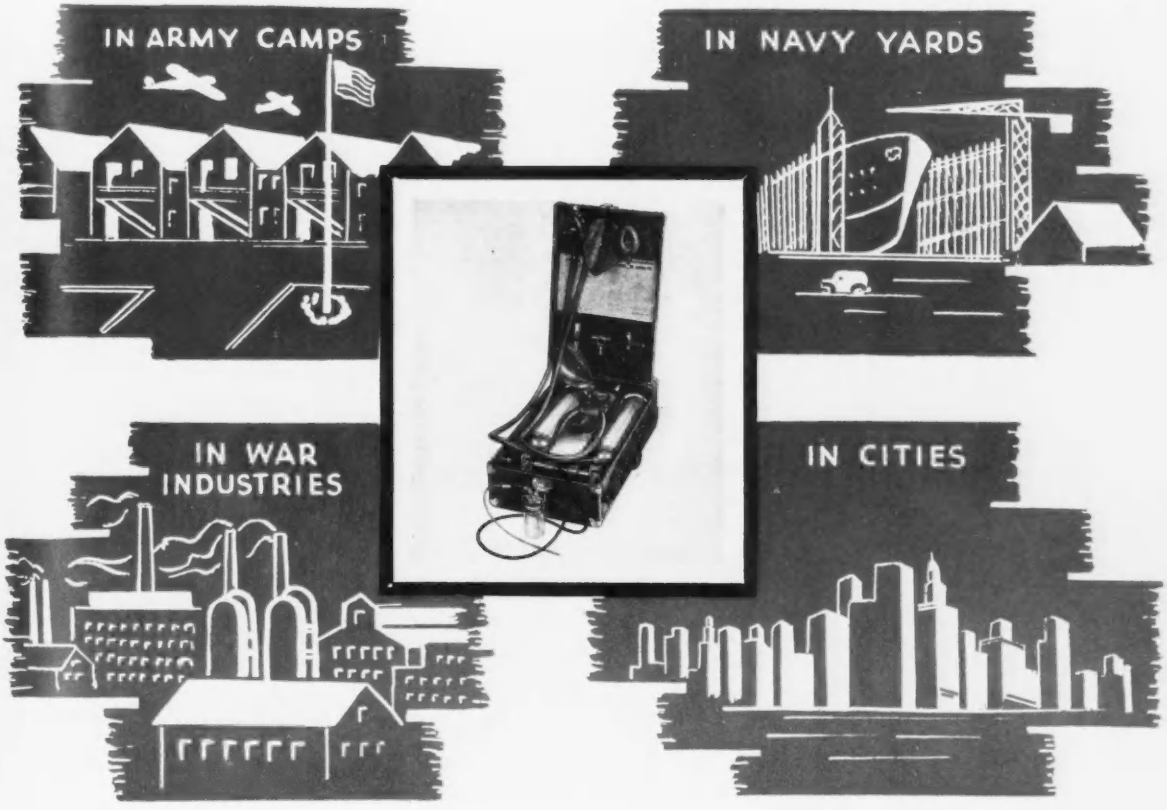
THE FIRE THAT COULDN'T BE PUT OUT . . . BUT WAS!

Outside the city limits with no water supply available is this night club. A fire of incendiary origin was discovered in the early morning. No one was in the building. The fire had a terrific start from the basement, up through the center of the building through the roof, when the fire department arrived. Parts of several rooms on each floor were burning. The wooden box-like construction was such that with the start the fire had, no one thought the building could be saved. In fact, experienced firemen predicted it would burn to the ground. Here, again, is the case of High Pressure with its 10 to 1 efficiency making good use of the 500 gallons in the water tank on the fire truck which made a complete stop in record time. Had it not been for High Pressure, this building would have burned to the ground with an additional loss of several thousands of dollars. The smaller pictures show the extent of the fire, again proving the value of 600 pounds nozzle pressure. About a week later the building was touched off again and had a roaring start and again BEAN-FMC High Pressure Fog saved it with 200 to 300 gallons of water.

ORIGINATED BY

BEAN-FMC

LIFE SAVING & FIRE PROTECTION GO HAND IN HAND



WHEREVER men are working to advance the war effort, the EMERSON RESUSCITATOR, INHALATOR and ASPIRATOR is doing a superb job of life saving.

Your community should have this extra protection against smoke suffocation, submersion, shock or other asphyxia.

A post card will bring literature or an actual demonstration.

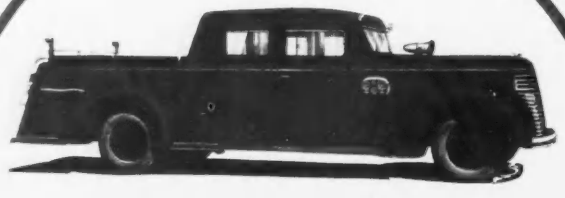
J. H. EMERSON COMPANY

24 COTTAGE PARK AVE. CAMBRIDGE, MASS.

IMPORTANT DECISIONS

are seldom made in haste. Careful determination of all factors concerned, serious consideration of all points at issue and an impartial weighing of the findings usually precede any decision of importance.

If you follow the same cautious procedure in deciding on the purchase of fire apparatus you will inevitably reach the sound decision that only AMERICAN-LAFRANCE* offers you the fire protection you are entrusted to purchase with maximum value and dependability per dollar of cost. Let us send you specifications on equipment to meet your needs. No obligation.



* LAFRANCE-FOAMITE in Canada

AMERICAN-LAFRANCE-FOAMITE CORPORATION

ELMIRA, NEW YORK, U. S. A.

LAFRANCE FIRE ENGINE AND FOAMITE LIMITED

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